SOUTHERN PACIFIC COMPANY

WESTERN — COAST DIVISION
SPECIAL INSTRUCTIONS

No. 1

EFFECTIVE SUNDAY, MAY 31, 1964
AT 12:01 A.M.,
PACIFIC STANDARD TIME

THESE INSTRUCTIONS CONSTITUTE A PART OF THE TIMETABLE CURRENTLY IN EFFECT

M. A. McINTYRE,
General Manager.

R. D. SPENCE,
S. B. BURTON,
Assistant General Managers.

J. P. GRIFFIN,
General Superintendent of Transportation.

J. J. WILLIS
Superintendent of Transportation.

D. R. KIRK
Superintendent.

SPEED TABLE

TIME PER MILE	MILES PER HOUR
36″	100
37″	97.3
38″	94.7
39″	92.3
40″	90
41″	87.8
42″	85.7
43″	83.7
44″	81.8
45″	80
46″	78.3
47″	76.6
48″	75
49″	73.5
50″	72
51″	70.6
52″	69.2
53″	67.9
54″	66.7
55″	65.5
56″	64.3
57″	63.2
58″	62.1
59″	61
1′00″	60
1′01″	59
1′02″	58.1
1′03″	57.1
1′04″	56.2
1′05″	55.4
1′06″	54.5
1′07″	53.7
1′08″	52.9
1′09″	52.2
1′10″	51.4
1′11″	50.7
1′12″	50
1′13″	49.3
1′14″	48.6
1′15″	48
1′16″	47.4
1′17″	46.8
1′18″	46.2
1′19″	45.6
1′20″	45
1′25″	42.4
1′30″	40
1′35″	37.9
1′40″	36
1′45″	34.3
1′50″	32.7
1′55″	31.3
2′00″	30
2′15″	26.7
2′30″	24
2′45″	21.8
3′00″	20
3′30″	17.1
4′00″	15
5′00″	12
6′00″	10
7′00″	8.6
7′30″	8
8′00″	7.5
10′00″	6

HOSPITAL DEPARTMENT SURGEONS

LOCATION	NAME	TITLE
San Francisco	Dr. V. M. Strange	Chief Surgeon
So. San Francisco.	Dr. D. E. Julian	District Physician & Surgeon
Oakland	Dr. Ray A. Ericson	Aurist
Oakland	Dr. F. B. Parker	District Physician & Surgeon
Oakland	Dr. H. H. Appledorn, Sr.	Division Surgeon
Oakland	Dr. H. H. Appledorn, Jr.	District Physician & Surgeon
Oakland	Dr. H. W. Wolfsen	District Physician & Surgeon
Oakland	Dr. D. E. Dietrich	District Physician & Surgeon
Oakland	Dr. F. E. Rapp	District Physician & Surgeon
Oakland	Dr. Weldon Thyberg	District Physician & Surgeon
Oakland	Dr. Edmund H. Padden	Oculist
Oakland	Dr. R. A. Ericson	Oculist
Fruitvale	Dr. G. W. Dygert	Asst. Dist. Physician & Surgeon
Fruitvale	Dr. W. R. Wiesinger	Aurist
Fruitvale	Dr. H. P. Howell	Asst. Oculist & Artist
Elmhurst	Dr. Theo. R. Stepman	District Physician & Surgeon
Berkeley	Dr. J. R. Masterson	District Physician & Surgeon
Berkeley	Dr. W. G. Donald	District Physician & Surgeon
Berkeley	Dr. H. G. Mankin	District Physician & Surgeon
Albany	Dr. Douglas Ream	District Physician & Surgeon
Richmond	Dr. Lawrence Brown	District Physician & Surgeon
Richmond	Dr. W. E. Cunningham	District Physician & Surgeon
Richmond	Dr. Douglas D. Vollan	Asst. Dist. Physician & Surgeon
Alameda	Dr. A. L. Guerra	District Physician & Surgeon
Alameda	Dr. W. C. Babcock	District Physician & Surgeon
San Leandro	Drs. Rudnick & Kessler	District Physicians and Surgeons
San Leandro	Dr. Theo R. Stepman	District Physician & Surgeon
San Leandro	Dr. H. A. Duey	District Physician & Surgeon
San Leandro	Dr. Edwin Wortham	Oculist
San Lorenzo	Dr. Ramond C. Gallagher	District Physician & Surgeon
Hayward	Dr. Keith West	District Physician & Surgeon
Hayward	Dr. Roy DeLaney, Jr.	District Physician & Surgeon
Rodeo	Dr. K. E. Stemmle	District Physician & Surgeon
Crockett	Dr. Samuel Eldridge	District Physician & Surgeon
Vallejo	Dr. Burton F. Jones	District Physician & Surgeon
Vallejo	Dr. G. J. Budd	District Physician & Surgeon
Vallejo	Dr. J. C. Miller	Asst. Dist. Physician & Surgeon
Napa	Dr. D. H. Murray	District Physician & Surgeon
St. Helena	Dr. M. M. Booth	Emergency Surgeon
Calistoga	Dr. Frank McGreane	District Physician & Surgeon
Benicia	Dr. B. T. Sanford	District Physician & Surgeon
Martinez	Dr. B. M. Whisenand	District Physician & Surgeon
Martinez	Dr. W. A. Fitzpatrick	District Physician & Surgeon
Concord	Dr. L. Robert Martin	District Physician & Surgeon
Walnut Creek	Dr. M. C. Bolender	Emergency Surgeon
Danville	Dr. John Blemer	Emergency Surgeon
Pittsburg	Dr. Claud L. Kerns	Emergency Surgeon
Antioch	Dr. Donald A. Gish	Emergency Surgeon
Suisun-Fairfield	Dr. Felix R. Rossi, Jr.	District Physician & Surgeon
Suisun-Fairfield	Dr. W. J. Olson	Asst. Dist. Physician & Surgeon
Suisun-Fairfield	Dr. Wm. R. Nesbitt	Asst. Dist. Physician & Surgeon
Vacaville	Dr. M. P. Stansbury	District Physician & Surgeon
Winters	Dr. E. A. Young	District Physician & Surgeon
Dixon	Dr. Alvin H. Gullock	Emergency Surgeon
Davis	Dr. Leo A. Cronan	Emergency Surgeon
Davis	Dr. Charles L. McKinney	Emergency Surgeon
Davis	Dr. T. Y. Cooper	Emergency Surgeon
Sacramento	Dr. W. W. Cress	Division Surgeon
Sacramento	Dr. A. F. Wallace	Division Surgeon
Sacramento	Dr. B. A. Daley	District Physician & Surgeon
Sacramento	Dr. W. N. Becker	District Physician & Surgeon
Sacramento	Dr. E. K. Perkins	District Physician & Surgeon
Sacramento	Dr. J. W. Harris	District Physician & Surgeon
Sacramento	Dr. K. Kossner	Aurist
Sacramento	Dr. E. V. Minasian	Oculist
Roseville	Dr. L. B. Jones	District Physician & Surgeon
Roseville	Dr. J. F. McAnally	Asst. Dist. Physician & Surgeon
Tracy	Dr. J. E. Longley	District Physician & Surgeon
Tracy	Dr. John C. Kimball	Asst. Dist. Physician & Surgeon
Tracy	Dr. H. L. McClelland	Asst. Dist. Physician & Surgeon
Niles	Dr. E. C. Grau	District Physician & Surgeon
Pleasanton	Dr. Harold J. Shanks	District Physician & Surgeon
Livermore	Dr. C. W. Norris	District Physician & Surgeon
Santa Clara	Dr. H. G. Cleary	District Physician & Surgeon
San Jose	Dr. D. R. Threfall	District Physician & Surgeon
San Jose	Dr. John Watson	District Physician & Surgeon
San Jose	Dr. V. S. Matthews	District Physician & Surgeon
San Jose	Dr. H. G. Cleary	District Physician & Surgeon
San Jose	Dr. J. M. Hohl	Asst. Dist. Physician & Surgeon
San Jose	Dr. P. T. Pace	Aurist
San Jose	Dr. Albert Buckwald	Aurist
San Jose	Dr. Stanley T. Robinson	Oculist
San Jose	Dr. Peter Parisi	Oculist
San Jose	Dr. Jay Overmeyer	Oculist
San Jose	Dr. Norman Buys	Oculist
San Francisco	Dr. Francis Berg	Examiner, 65 Market Street
San Francisco 3rd and King Sts.	Dr. Chuck Pang	Visiting Physician and Examiner
San Francisco 3rd and King Sts.	Dr. Ivan Ingram	Visiting Physician and Examiner
South San Francisco	Dr. D. E. Julian	District Physician & Surgeon
San Bruno	Dr. Norman C. Fox	Emergency Surgeon
Burlingame	Dr. B. F. McLaughlin	District Physician & Surgeon
San Mateo	Dr. Benjamin H. Page	District Physician & Surgeon
San Mateo	Dr. Benjamin S. Page	District Physician & Surgeon
Belmont San Carlos	Dr. E. L. Nelson	District Physician & Surgeon
Redwood City	Dr. H. E. Clattenburg	District Physician & Surgeon
Redwood City	Dr. N. R. East	Asst. Dist. Physician & Surgeon
California Ave Palo Alto	Dr. Douglas N. Jenks	Asst. Dist. Physician & Surgeon
Palo Alto	Dr. Wm. E. Lewis	District Physician & Surgeon
Mountain View	Dr. W. E. Brown	District Physician & Surgeon
Sunnyvale	Dr. H. G. Diesner	District Physician & Surgeon
Sunnyvale	Dr. Norman Buys	Oculist
Campbell	Dr. P. A. Werthman	District Physician & Surgeon
Los Gatos	Dr. H. H. Thibault	District Physician & Surgeon
Los Altos	Dr. John Frymire	District Physician & Surgeon
Santa Cruz	Dr. A. A. Cowden	Emergency Surgeon
Santa Cruz	Dr. John T. Bolderick	Emergency Surgeon
Santa Cruz	Dr. John W. Morris	Emergency Surgeon
Morganhill	Dr. J. A. Cary	Emergency Surgeon
Gilroy	Dr. Robert T. Scott	Emergency Surgeon
Hollister	Dr. E. N. Moore	District Physician & Surgeon
Watsonville	Dr. James L. DePuy	District Physician & Surgeon
Watsonville	Dr. W. W. Hoskins	Asst. Dist. Physician & Surgeon
Watsonville	Dr. John F. Skelley	Aurist
Watsonville	Dr. James A. Spencer	Oculist & Aurist
Watsonville	Dr. T. E. Shull	Asst. Dist. Physician & Surgeon
Monterey	Dr. A. J. Herrman	District Physician & Surgeon
Pacific Grove	Dr. H. S. Hoyt	District Physician & Surgeon
Salinas	Dr. E. W. Reeves	District Physician & Surgeon
Salinas	Dr. Stanley G. Parker	Asst. Dist. Physician & Surgeon
Salinas	Dr. Chas. L. Doolittle	Asst. Dist. Physician & Surgeon
Gonzales	Dr. Gustave Eberhardt	Emergency Surgeon
Soledad	Dr. Richard Handley	Emergency Surgeon
King City	Dr. Leon H. Andrus	District Physician & Surgeon
San Miguel	Dr. C. R. Kennedy	District Physician & Surgeon
Paso Robles	Dr. Albert L. Long	Asst. Dist. Physician & Surgeon
Atascadero	Dr. R. D. Walters	Emergency Surgeon
San Luis Obispo	Dr. James Barry Smith	District Physician & Surgeon
San Luis Obispo	Dr. R. T. Treadwell	District Physician & Surgeon
San Luis Obispo	Dr. A. F. Fogo	Aurist
San Luis Obispo	Dr. Karl Kundert	Asst. Oculist

NOTE.—Emergency Surgeons should only be summoned for temporary treatment when prompt attention is required and when patients cannot be sent to, or await arrival of, Division or District Surgeon.

HOSPITALS

GENERAL HOSPITAL	SAN FRANCISCO
EMERGENCY HOSPITAL	SACRAMENTO
EMERGENCY HOSPITAL	WEST OAKLAND

WATCH INSPECTORS

K. I. Dunlap, Mgr. of Time Service	65 Market St., San Francisco
San Francisco	A. Solari, 745 Third St.
Oakland	Evan J. Sawyer, 1624 Franklin St.
Oakland	Don J. Allphin, 5836 Foothill Blvd.
Oakland	Lesslie's Jewelry, 7525 MacArthur Blvd.
Alameda	D. A. Holker, 1251 Park St.
Berkeley	C. H. Lee, Jeweler, 2210 Shattuck Ave.
Richmond	Stribley Jewelers, 1013 McDonald Ave.
San Lorenzo	San Lorenzo Jewelers, 545 Paseo Grande
Benicia	Curt S. Appe
Vallejo	Frank Lovegod, 617 Marin St.
Fairfield	C. L. Pegar
Crockett	A. Ghioldi
Calistoga	W. A. Stone
Sacramento	Grebitus & Sons, 1108 "J" Street
Roseville	Verne Martin, 245 Vernon St.
Martinez	O. J. Danielson, Beard's Jewelers
Pittsburg	Woulf & Ury
Antioch	Clarks Jewelers
Tracy	L. H. Jolley
Niles	Hoyle Easley, 513 First St.
San Jose	Frank Scholes, 33 N. First Street
San Francisco (Bayshore)	L. E. Brown, Jewelers, 10 Leland Ave.
Pacifica	Linda Mar Jeweler, 1339 Linda Mar Shopping Center
San Mateo	Bennoit the Jeweler, 224 "B" St.
Redwood City	Kessinger Jewelry, 2201 Broadway
Sunnyvale	Mann Jewelry Store, 199 So. Murphy St.
Los Gatos	Peters Jewelry, 13 N. Santa Cruz Ave.
Gilroy	Lawton's Gem Shop, 36 N. Monterey St.
Watsonville	Jolley's, 442 Main St.
Santa Cruz	Pennell's, 1359 Pacific Ave.
Monterey	A. R. Bergquist, 447 Alvarado St.
Salinas	Lee's Jewelers, Main & Alisal Sts.
King City	Bolton's Jewelry, 312 Broadway
San Luis Obispo	Don Andrews, 1009 Higuera

RULE A. Employes must have copy of Rules and Regulations of the Transportation Department effective July 1, 1960, with page revisions as listed on page 1 revised April 1, 1961.

RULE M. Employes are warned that it is dangerous to ride on top or side of cars while passing points where impaired clearance exists, and that they must protect themselves from injury. See list of impaired clearances on main track and siding.

There are numerous other structures with impaired clearance on yard and station tracks on the division, and employes must be familiar with their location and avoid personal injury.

Employes are prohibited from riding or walking on the roof of any moving car.

(Exception: Employes may ride on the roof of cars when necessary during switching operations, but must not cross from the roof of one car to another while in motion.)

RULE 1. Form prescribed for recording variations of standard clock with time signal has been discontinued.

RULE 7-B. Yardmen must use green flag by day and green light by night in giving proceed signals for movement of trains and engines entering or leaving yard tracks and for movement of engines on engine tracks San Francisco, Bayshore, San Jose, Watsonville Jct. and San Luis Obispo.

RULE 10-H. On the following branches:

Calistoga
Winters
Union
Schellville
Vallejo
San Ramon
Stonehurst
San Bruno
Lick
Hollister
Davenport
Santa Cruz
Monterey
Spreckels

a green signal will not be displayed to the right of each track at the limit of restrictions. Instead, limit of restriction will be indicated by a yellow signal displayed to the left of track in direction of approach. Speed may be resumed when engine reaches the yellow signal so displayed. or when it is known by engineer that rear of train has passed the limit of restriction as specified in train order or timetable bulletin.

RULES 10-G, 10-H and 10-I. When unattended red flags or red lights, yellow signals, red CONDITIONAL STOP signs and yellow PROCEED PREPARED TO STOP signs are displayed between siding switches they must be duplicated to right of track in direction of approach. If clearance between siding and main track does not permit display of these signals to right of track in direction of appoach, signals may be displayed to left of track in direction of approach.

Display of these signals to the left of track in direction of approach must be respected as though they were displayed in accordance with these rules.

RULE 10-J. Speed signs prescribing an increase in speed will not be installed on branches. Speed Restrictions tables will indicate permissible speeds between mile post locations named.

RULE 19. Last sentence of Item (5), Rule 19, reading: "Red light must be extinguished and green light displayed when train has stopped clear of main track to be met or passed by another train outside of block system limits." is CANCELLED.

RULE 26. On diesel fueling tracks at West Oakland diesel shop and Tracy Diesel track, a blue light will not be attached to reflectorized blue "Men at Work" signs when displayed at night.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction.

RULE 84. Passenger trains making station stop where rear end of train cannot be seen from the head end due to curvature of track, foggy or stormy weather, engineer will recall flagman from the rear as prescribed by Rule 14(d) or 14(e), as the case may be. When all passengers on rear of train have been loaded, flagman will sound signal 16(k) which will be answered by the engineer with signal 14(g). Train will not proceed until signal is given by trainman on head end of train.

RULE 98. Cars must not be kicked, dropped or shoved over railroad crossings not protected by interlocking, unless movement is protected.

RULE 102. Should a passenger train break-in-two, or an emergency application of brakes occur while in motion on the grade between Santa Margarita and San Luis Obispo, or between Santa Cruz and Felton, forward brakeman will immediately go toward rear, close angle cock at opening if train has parted, set hand brakes and turn up retaining valves on detached portion. After train is coupled air must be applied from engine before hand brakes and retaining valves are released.

If necessary to leave detached portion on main track, rear truck of detached portion ascending grade, or leading truck of detached portion descending grade, must be chained to rail in such manner as to derail car should there be an uncontrolled movement.

RULE 105. Sidings designated "E" in Capacity of Sidings column are assigned for use by eastward trains; those designated "W" are assigned for use by westward trains. Those designated "M" for middle, may be used by trains in either direction. Those designated "N," "S," "1," "2" or "3" are assigned for use by trains as shown in special instructions for the subdivision on which located.

Capacity of Sidings column indicates the number of cars of average length of 49 feet that siding will hold between fouling points, in addition to one engine and caboose.

When length of train and/or capacity of siding permits, trains taking siding after clearing main track will provide not less than 400 additional feet clearance to fouling points.

RULE 107. Freight trains and engines must avoid passing between stations and loading tracks when passenger trains are closely approaching from opposite direction on double track, and care must be exercised by non-stopping passenger trains when approaching stations at about the same time that other passenger trains are approaching from the opposite direction. When practicable non-stopping trains are to be given preference, but each train must be operated in a manner to avoid confusion and hazard of personal injury.

RULE 206-B. When rubber stamp and printed train order form are used for issuance of Form Y train order, train dispatcher after recording form in train order book with stamp is required to write and transmit only the order number, addresses, mile post locations, stations, times and dates. Train order operators using the printed form for such train orders are required to copy and repeat only that portion of the order transmitted by the train dispatcher.

RULE 283. Movements governed by semaphore type diverging route signals displaying "Proceed on Diverging Route," Figs. A and B, must be made with caution.

RULES 281 and 285. Movements against the current of traffic governed by semaphore type dwarf signals displaying "Proceed," Fig. E, Rule 281; or by light type dwarf signals displaying "Proceed not Exceeding Medium Speed.", Fig. G, Rule 285, must be made with caution and position of switches observed.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

PUSH BUTTONS

Where signal protection is provided for movements from an adjacent track to main track, push buttons and pilot lights are installed in box near each of the two signals, with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Train on main track to let train on siding pass may clear signal on siding by pressing button bearing number of signal on siding. Train on siding to let train on main track pass should not pass Approach Circuit sign, but when necessary to do so, may clear signal on main track by pressing button bearing number of signal on main track.

Further instructions posted inside push-button box.

ELECTRIC SWITCH LOCKS

Where electric switch locks are installed, lock box door must not be opened if movement is to be made into a track leading from main track until engine or car is standing within 150 feet of the switch; or if movement is to be made from such track, or through a crossover to a main track, until block indicator indicates block clear on opposite track. Within CTC limits train dispatcher's permission must also be obtained before lock box door is opened.

After lock box door is opened lock lever cannot be moved to opposite position to release switch for hand throwing until indicator in lock box indicates "unlocked".

Lock lever must not be returned to locked position until all movements over the switch are completed, switch returned to normal position and locked, after which lock box door must be closed and locked. Within CTC limits train dispatcher must also be notified by telephone when completed.

When block indicators indicate "block occupied," instructions posted inside lock box for operation of push button to start time-release must be complied with if movement is to be made to main track while approach circuit is occupied by another train, in addition to providing flag protection when necessary.

Low type electric locks, such as are applied direct to lever of hub type switch stands, function as above except that the removal of the switch lock has the same effect as opening the lock box door. Instead of being equipped with an "unlocked" indicator, these locks have a pilot light that indicates by illumination when the lock is unlocked.

When pilot light will not illuminate to indicate electric lock is unlocked, push button on adjacent cast iron box, protected with cover and locked with switch lock, should be depressed to illuminate green light. After a time interval of from one to seven minutes pilot light on electric lock will be illuminated, indicating lock is unlocked.

Emergency lock release to be used only in case of electrical or mechanical failure, as indicated by failure of time-release to function after several minutes. When necessary to break seal on emergency lock release, train dispatcher must be notified immediately, and movement made only after flag protection provided on both tracks.

MECHANICAL SWITCH LOCKS

After lock box door is opened lock lever may be moved upward against stop. After a time interval of from one to seven minutes indicator will show UNLOCKED and lever may be moved to reverse position "R". Switch may then be operated in usual manner.

Lock lever must not be returned to normal position "N" until all movements over the switch are completed, switch returned to normal position and locked.

Emergency lock release to be used only in case of mechanical failure, as indicated by failure of time release to function after several minutes. When necessary to break seal on emergency release, train dispatcher must be notified immediately and movement made only after necessary flag protection is provided.

RULE 605. INTERLOCKING

Trains and engines must not enter main track within interlocking limits where no signal governs such movement until permission has been obtained from signal operator, and must then run with caution not exceeding 12 MPH to the next signal.

Movements governed by dwarf signals must be made with caution and position of switches observed, as such signals govern movements for various routes.

Dual control switches within interlocking limits are under the control of signal operator. When necessary to hand-throw these switches, permission must be obtained from signal operator and be governed by Rules 771 and 772.

At all interlockings, when route lined is not to be used, following engine whistle signal will be sounded: o o — o o.

RULE 663(b). When movements are made over dual control switches under provisions of this rule, dual control switches must be placed in hand position, hand operated in accordance with Rule 772, and locked until movement over the switch has been completed.

CENTRALIZED TRAFFIC CONTROL

RULE 765. Hand operated switches within A-PB or CTC limits must not be operated without permission from train dispatcher and where main track hand operated switches are not equipped with electric or mechanical switch locks and maximum authorized speed is in excess of 20 MPH, trains and engines using such switches must occupy main track continuously or leave main track switch open while work is being performed. Such tracks must not be used by trains or engines for the meeting or passing of trains.

RULE 769. Certain main track hand operated switches to station tracks and spur tracks are equipped with electric switch locks, and train dispatcher's permission must be obtained before door on high type electric lock is opened or switch padlock removed from keeper of low type electric switch lock. Instructions for operation of electric switch locks are posted in telephone booths or inside of electric lock boxes.

RULE 776. Trains authorized by train dispatcher to pass absolute signal displaying stop indication and to proceed at restricted speed under provisions of this rule, may resume normal speed after rear of train passes next block signal displaying green aspect.

RULE 781. White light which may appear on side of relay housing is maintainer's call light, but when train has been stopped by an absolute signal and white light is observed burning, members of crew will communicate with train dispatcher, even though another train may be seen approaching.

GENERAL REGULATIONS

RULE 808. In case of grade crossing accident, it is permissible for crew members on request of law enforcement officers to furnish their names, occupations and addresses, identification of the train; confirmation that the whistle, bell and headlight or headlights were operating; and direction of the vehicle. Signed statements are not to be given. Should police officers desire any additional information, they should be courteously referred to Claims Department representative.

RULE 836. When necessary to shove cars ahead of engine between stations on descending grade, cars must be chained to the engine unless air brakes are operative on all cars and air cut in.

RULE 872. Enginemen taking charge of engines at West Oakland Diesel Shop, Tracy, 7th St. Diesel Terminal, San Francisco, Bayshore, San Jose, Watsonville Junction and San Luis Obispo, will consider engines as having been amply supplied with water, fuel, sand, prescribed signals, tools, supplies and flagging equipment in serviceable condition.

RULE 873. Sanders must not be operated between absolute or interlocking signals governing movements over dual control or power operated switches or spring switches.

AIR BRAKE RULES

RULE 2-B. FREIGHT TRAINS.

Dynamic brake on head end of freight trains must not exceed four 6-axle units, six 4-axle units or any combination of both which totals 24-axles of dynamic braking except, dynamic brake on DF-1 to DF-13 classes is limited to five units.

Trailing EMD units are capable of dynamic braking when connected to the lead unit with a field loop jumper.

A DF class Alco unit is capable of dynamic braking when its dynamic brake cut-out switch is closed; when the switch is open, the dynamic brake will not operate on the unit.

Field loop jumpers are only required in Alco units to permit the dynamic brake to operate on trailing EMD unit.

RULE 3. Standard brake pipe pressure for freight and mixed trains is 90-lbs.

RULE 11. Cars equipped with brake cylinder release valve may have one or two operating release rods. Operating rods connected to brake cylinder release valve may be identified by stencil reading—"Br. Cyl. Rel." or by a diamond shaped stencil or by noting that ends of release rod form a small closed circle. Air brakes can be released on cars equipped with brake cylinder release valve by a hard momentary pull on release rod after brake pipe pressure has been depleted.

RULE 23. The following series of cars are equipped with AB brake system which has automatic changeover feature to provide proper brake function when car is loaded and when empty:

SP 345000 — 345669	Gondolas
SP 463500 — 463999	Hoppers (open top)
SP 467500 — 467549	Hoppers (open top)
SP 491000 — 491059	Hoppers (covered)
SP 492000 — 492039	Hoppers (covered)
SP 500604	Flat Car

Before leaving a station or point where such cars have been added to the consist, engineer must actuate the automatic change-over feature by reducing brake pipe pressure to below 20 pounds whether cars are loaded or empty.

RULE 33. When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH.

RULE 38-A. Will not apply at Sacramento except incoming engineer after completing stop will make a full service brake application, leaving brakes applied. Running test in compliance with Rule 39 must be made as soon as speed permits after train departs terminal.

MISCELLANEOUS

5. Helper service:

(a) Helper engines must not be placed behind wooden underframe equipment.

(b) When helper engine is placed behind caboose, not more than 2 operating units or 4000 operative horsepower will be used.

(c) Helper engines consisting of not more than four units may be placed immediately ahead of caboose.

Air will be cut in on all helper engines, and engine must not be cut off when train is in motion.

6. Unless otherwise authorized, trains handling passenger cars with flat spots on wheels in excess of 3¼ inches in length must not exceed 10 MPH. When flat spots are not in excess of 3¼ inches long such cars may be operated at maximum authorized speeds.

27. Should a passenger train be stopped in a tunnel, air conditioned cars within the tunnel must immediately have the air conditioning systems, including ice engines and engine generators, shut off, fresh air intake shutters closed, and blower fans shut off.

Should a train be stopped with the engine in a tunnel and it is found that, in the case of a passenger train it cannot be moved within five minutes after stopping, and in case of a freight train it cannot be moved within a reasonable length of time, trainmen and enginemen must take necessary precautions to prevent movement. Independent brake and sufficient hand brakes must be immediately applied. Engine wheels must be secured by blocks and chains, and power plants and steam generators, if any, on engine shut down.

28. DF and DP class engines operated with engineer in other than the lead unit in direction of movement, must not exceed 20 MPH when approaching highway or street crossings at grade, subject to further restriction imposed by local conditions.

SPEED RESTRICTIONS FOR ENGINES: Maximum speed shown below is subject to further restrictions applicable to certain territories as shown in Speed Restrictions for Trains:

NOMINAL CLASS	RUNNING FORWARD WITH TRAIN OR LIGHT	RUNNING BACKWARD WITH TRAIN OR LIGHT
DF-1 to 12 with 60/17 gear ratio trucks	79	#30
DF-1 to 15 with 61/16 gear ratio trucks	75	#30
DF-1 to 14 with 62/15 gear ratio trucks	70	#30
DF-100	65	##65
DF-101, 103 to 107, 109 to 112	35*	##35*
DF-115, 119, 123, 126	65	##65
DF-114, 117, with 62/15 gear ratio trucks	65	##65
DF-114, 117 with 65/12 gear ratio trucks	55	##55
DF-116, 118, 120	70	##70
DF-121, 122, 124, 125	70	##70
DF-127	65	##65
DF-500, 501	70	##70
DF-502	70	##70
DF-600, 601	70	##70
DF-602, 603, 606 with 60/17 gear ratio trucks	79	##79
DF-602, 603, 606 with 61/16 gear ratio trucks	75	##75
DF-604, 605, 607 to 616	70	##70
DF-617 to 624, 700, 701	75	##75
DF-800	70	#30
DF-801	70	##70
DF-802	75	##75
DP-4, 7, 12	79	#30
DP-5, 6, 8, 9, 10, 11	79	#30
DP-13	79	#30
DS-1, 4, 5	45	45
DS-6 to 12	60	60
DS-100 to 108, 111 to 115, 117 to 122	60	##60
DS-109	65	65
DS-200 to 205	35	35
DS-300 to 302	35*	##35*
DS-303	65	##65
DS-400 to 402	65	##65
DS-500 to 506	55	##55
DS-600 to 606	65	##65
DS-607	60	##60
RDC	79	#30
Any Steam or Diesel Engine Not Listed	35	25

#When on head end of train or running light and engineer is in other than leading control cab in direction of movement.

##When operated in multiple unit control with engineer in other than lead unit in direction of movement must not exceed 30 MPH.

*On less than 90-lb. rail must not exceed 25 MPH on Hollister Branch.

Maximum speed of engines under following conditions, running under own power, or hauled in train:

When all weight has been removed from any one pair of drivers	20 MPH
When all weight has been removed from only one wheel of any pair of drivers	30 MPH
When engine truck is removed	20 MPH
When main rod only is removed	30 MPH
When side rod only is removed	30 MPH
When both main and side rods are removed	20 MPH

Dead diesel engines hauled in train and weighing 100,000 pounds or more must be placed first behind engine handling train. If weight is less than 100,000 pounds, dead diesel engines must be placed near rear of train.

Dead steam engines hauled in train and weighing 150,000 pounds or more on drivers must, as far as practicable, be cut in between 25 and 30 cars from the head end of the train but in no event less than 8 cars from engine handling the train. If weight is less than 150,000 pounds on drivers dead steam engines must be placed near rear of train.

Unless otherwise restricted, not more than two dead steam engines shall be moved in any one train and when so moved they must be separated by five cars. When an S or SE class and a road engine are moved dead in train, a steel underframe freight car must be placed between them and S or SE class engine entrained with tender ahead.

Maximum speed of trains handling dead engines of S or SE class 20 MPH; other steam engines 40 MPH; and diesel engines the speed shown for same engine running forward light, except DS-200, 201 class must have traction motor brushes removed and speed restricted to 30 MPH.

Dead or disabled engines, and equipment listed in timetable which requires movement at reduced speed must first be reported as ready to move to the chief train dispatcher, who will designate the train in which the engine is to be moved. Any such engine must not be handled in train until train order designating maximum speed is issued.

Movement of foreign line engines, in service or dead in train, must not be authorized until provisions of current Line Clearance Circular have been complied with.

Sacramento Northern engines will not exceed speed restrictions for engines shown on Page 12 of Sacramento Northern Railway Timetable and maximum speed is subject to further restrictions for trains.

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MPH MAIN TRACKS ON BRANCHES
Double or triple loads	..	25
Scale test cars	40	30
except SPMW-2024	65	49
Cars with arch bar trucks	40	30
Steel pile drivers, except:	40*	30*
SPMW 4088 and 5479	45*	35*
(locomotive crane pile drivers)		
with boom detached and trailing	35*	25*
with boom attached and trailing	25*	15
Wooden pile drivers	..	25*
Relief outfits with steam derrick, except:	45*	25*
Nos. 7000 and 7010 on San Ramon Branch	..	10
Nos. 7000 and 7010 must not operate between Larkmead and Calistoga on Calistoga Branch.		
7007-7033-7034	35*	25*
Nos. 7014 and 7025 must not operate on any branch except Schellville Branch; Calistoga Branch between Napa Jct. and Napa River bridge 69.62 at Napa; and on Vallejo Branch between Napa Jct. and MP 68.40.		
Vasona Branch and between Castroville and Monterey.		
Locomotive cranes:		
Power shovel on own wheels	35*	25*
Ditchers on own wheels, except:	35*	25*
SPMW-4044	25*	25*
Car-top ditchers, if blocking and tie-down cables are removed	35*	25*
K&J, pedestal or center-hinged air-dump cars (except SPMW 5100 to 5289 loaded or empty)	35*	25*
With boom disconnected, heavy end forward, except SPMW-4020, 743 and 2575.	45 35*	25* 25*
With boom disconnected, light end forward	20*	15
With boom in place, either end forward	25*	15
Rotary snow plows:		
Steam	25	15
Electrified	35	15

***These speeds must not be exceeded, and on curves where authorized speed is more than 15 MPH speed must be reduced to 5 MPH less than shown in timetable and on speed signs.**

OTHER MAXIMUM SPEEDS	MPH PASSENGER TRAINS	MPH FREIGHT AND MIXED TRAINS
Trains of deadhead equipment, with caboose	65	..
Passenger trains, with caboose	65	..
Engine and caboose only, except: must not exceed speed for same engine running forward light.	..	65
Logs loaded on flat or logging cars, except:	35	..
On curves	25	..
Through truss bridges, tunnels and passing stations	15	..
Engine, flanger and caboose only, except:	..	40
On curves	..	30

SPMW cars equipped with K type brakes must not be handled in trains consisting of more than 50 cars and train must not exceed 40 MPH while handling such equipment.

All cars handled in passenger trains must be equipped with steel-tired or all-steel wheels. Cars not so equipped must move in freight trains, passengers if any, to move on passenger trains.

Passenger carrying cars, baggage, express and other head-end cars, unless equipped with steel center sills and steel platforms must not be handled in passenger trains except on authority of Superintendent.

Freight cars must not be handled behind occupied passenger carrying cars, except in mixed trains in military or naval movements.

Baggage, express, mail, refrigerator or other head-end cars must not be handled on rear of passenger trains unless trainmen can pass through them, except between West Oakland and Pittsburg.

When moving against current of traffic, or when movement is not protected by block signals, speed of passenger trains and light engines must not exceed 59 MPH, and speed of freight trains must not exceed 49 MPH, nor may speed exceed that applying to normal operation. Unless proceed signal received, or it is known that warning devices are operating, such trains and engines must stop approaching road crossings where automatic warning devices are installed, and may proceed after member of crew protects crossing.

RULES 10-H and 10-J. Between San Francisco and San Jose, speed signs may be displayed on a post below a yellow signal to indicate the maximum speed permitted one mile beyond the yellow signal. The number on such speed signs applies to all trains and should indicate the same speed as that designated by train order or timetable bulletin.

When speed signs are so displayed and the maximum speed indicated by the speed sign is in excess of that permitted by train order or timetable bulletin be governed by the train order or timetable bulletin. In the absence of such speed signs be governed by the speed designated in the train order, timetable bulletin or by Rule 10-H.

A green metal sign at the limit of the restriction will be displayed in accordance with Rule 10-H.

RULE 10-J. Westward speed sign reading 60-40 at MP 9.10 located on signal bridge one mile instead of three-fourths mile from restriction.

Westward speed sign at MP 45.86 reading 60-55 is to right of track with two tracks intervening.

Westward speed sign at MP 93.90 reading "Spring Switch 25" is 0.93 mile instead of three-fourths mile from restriction.

Speed signs to left of track:

Westward	Reading
MP 45.91	25
MP 92.97	35–30

RULE 14(m). That portion requiring whistle to be sounded one mile before reaching stations will not apply between San Francisco and San Jose.

RULE 16(e). San Francisco and San Jose Rule (e) is CANCELLED.

RULE 16(k). San Francisco and San Jose: When standing—apply or release air brakes.

RULE 21-C. Engines of passenger trains may display indicators between Seventh St. engine storage track and Third St. station, San Francisco; and from San Jose passenger station to roundhouse but must be removed immediately on arrival at roundhouse.

Watsonville Jct.: Engines may display indicators from train yard to roundhouse and from roundhouse to train yard.

RULE 26. At Third St. Station, San Francisco, and at San Jose passenger station, blue sign may be displayed on either side of engine cab.

RULE 82-A Trains originating Sunnyvale will obtain clearance only when operator is on duty.

Freight trains turning at Redwood Jct. must obtain clearance before leaving Redwood Jct.

Westward trains, except those having received clearance at San Jose, must obtain clearance at Santa Clara.

Westward extra trains originating San Jose Yard will obtain clearance at Santa Clara.

Extra trains originating at Santa Cruz and operating between Santa Cruz and Davenport or Olympia will display indicators as an extra train on entire trip as indicated by the engine number of the lead unit leaving Santa Cruz and are authorized to operate as extra trains between Santa Cruz and Davenport or Olympia without obtaining a clearance at Santa Cruz.

Crews arriving on No. 936 may assume schedule of No. 937 at Santa Cruz without clearance.

Westward trains must obtain clearance before leaving Santa Cruz only when operator is on duty.

Trains destined San Jose Yard need not obtain clearance at San Jose.

Nos. 98, 126, 372, 374, 76 and 154 must obtain clearance at San Jose.

RULE 83. Identification may be made at San Jose, or between Lick and Coyote; Corporal and Gilroy; to be applied at end of double track. Trains approaching each other between these stations must reduce speed sufficiently to permit identification, and Rule 14(k) will apply.

RULE 83A. Extra trains originating at Santa Cruz enroute Davenport or Olympia, in addition to information required by the train register, must register destination of trip (turning point) and date of departure in the column captioned "Signals." When trip has been completed date of arrival at Santa Cruz must also be entered in the column captioned "Signals."

An extra train enroute Davenport or Olympia must not leave Santa Cruz until it has been ascertained from the train register that all preceding extra trains via the route to be used have completed their trip and registered time and date of arrival at Santa Cruz accordingly.

At the following stations only the trains indicated will register:

Bayshore Sunnyvale Redwood City	Trains originating or terminating
Santa Clara	Trains originating or terminating at San Jose Yard.
San Jose	All trains except third class and extras which originate or terminate at San Jose Yard.
Gilroy	Trains originating or terminating.

RULE 83-B. At open train-order offices, trains may register by ticket as follows:

Bayshore	Trains originating or terminating.
Redwood Jct.	Trains to or from Niles Subdivision.
Santa Clara	No. 371, No. 373 and trains terminating at San Jose Yard.
San Jose	Nos. 98, 372, 126, 374, 76, 154, 371, 373, 75, 141, 99, 151, and westward trains terminating San Jose.
Watsonville Jct.	Nos. 98, 372, 126, 374, 76, 154, 371, 373, 75, 141, 151 and 99.

RULE 86. Will not apply to engines moving within Fourth Street Interlocking.

RULE 93. First class trains enter and leave San Francisco passenger station on yard tracks within Fourth St. interlocking limits.

First class trains enter and leave San Jose passenger station on yard tracks between MP 45.91 and MP 47.29.

Yard limits in which the provisions of Rule 93 will apply are established at the following stations:

West MP		East MP
.00	San Francisco	11.48
7.39	" (San Bruno Branch)	13.64
24.44	Redwood Jct.	27.17
	" (Niles Subdivision)	28.20
43.47	San Jose	60.00
	" (Lick Branch)	End of Branch
43.74	" (Agnew line)	
44.84	" (Milpitas line)	
51.47	" (Vasona Branch)	
79.31	Gilroy	82.41
96.11	Watsonville Jct.	101.25
	" (Santa Cruz Branch)	103.60
119.30	Santa Cruz	122.66
	" (Davenport)	81.71

When freight cars are moved from one point to another on main track within San Francisco yard limits at night, a red light must be displayed on rear of rear car.

Watsonville Jct.: Eastward freight trains, except Nos. 372 and 374 must not pass Signal 984 unless proceed signal received from yardman, green flag by day, green light by night.

Westward freight trains, except Nos. 371 and 373 must not pass Signal 1001 unless proceed signal received from yardman, green flag by day, green light by night.

RULE 97. Extra trains must not run via Vasona Branch unless train order so specifies.

RULE D-97-A. Will apply between San Francisco and San Jose; between Lick and Coyote; between Gilroy and Corporal; and between Logan and Watsonville Jct.

RULE 98. Ninth and Division Streets—San Francisco: WPRR crossing of SP tracks is not protected by interlocking. Trains and engines must stop before crossing either WPRR or SP tracks and not proceed over crossing until it has been ascertained there are no trains or engines closely approaching the crossing from either direction. SP trains and engines have precedence over WPRR trains and engines when using this crossing.

SAN JOSE: WPRR crossing of the SP tracks on the Vasona Branch at San Jose is not protected by automatic interlocking. Trains and engines must STOP before crossing either WPRR or SP tracks and not proceed over crossing until it has been ascertained there are no trains or engines closely approaching the crossing from either direction. SP trains and engines have precedence over WPRR trains and engines when using this crossing.

"STOP" signs installed on WPRR and SP tracks in approach to this crossing.

Sign reading "RAILROAD CROSSING 2000 FT." is located at MP 47.4 for westward trains and sign reading: "RAILROAD CROSSING 2400 FT." is located at MP 48.6 for eastward trains.

RULE 99. Granite Rock Co. will do switching at Logan. When necessary for SP crews to enter tracks jointly operated they must provide adequate protection to avoid collision.

Flag protection to the rear is not required between Santa Cruz and Davenport or Olympia.

RULE 99-C. Will apply on Vasona, Hollister, Santa Cruz and Davenport Branches.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates that will operate for against current of traffic movements but such movements must not exceed 25 MPH approaching these crossings:

Station	Location	Mile Post
Butler Road	Butler Road	8.4
South San Francisco	Linden Ave.	10.2
San Bruno	Scott St.	10.6
”	San Bruno Ave.	11.0
”	San Mateo Ave.	11.1
”	Angus Ave.	11.4
Millbrae	Center St.	12.8
”	Millbrae Ave.	13.7
Broadway	Broadway	15.2
Burlingame	Oak Grove Ave.	15.9
”	North Lane	16.2
”	South Lane	16.3
”	Howard Ave.	16.4
”	Bayswater Ave.	16.5
”	Peninsular Ave.	16.6
San Mateo	Villa Terrace Ave.	16.9
”	Bellevue Ave.	17.1
* ”	1st, 2nd, 3rd, 4th, and 5th Aves.	17.9
”	9th Ave.	18.3
”	25th Ave.	19.7
Hillsdale	Hillsdale Blvd.	20.0
Belmont	Ralston Ave.	22.0
”	Harbor Blvd.	22.2
San Carlos	Holly St.	23.2
”	Howard Ave.	24.1
Redwood City	Whipple Ave.	24.8
”	Brewster Ave.	25.2
”	Broadway	25.4
”	Jefferson Ave.	25.6
”	Maple St.	25.7
”	Main St.	25.8
”	Chestnut St.	26.0
”	Spruce St.	26.2
”	5th Ave.	27.2
Atherton	Fair Oaks Lane	27.7
”	Watkins Ave.	28.0
Menlo Park	Encinal Ave.	28.4
”	Glenwood Ave.	28.6
”	Oak Grove Ave.	28.8
”	Ravenswood Ave.	29.0
Palo Alto	Palo Alto Ave.	29.8
”	Churchill Ave.	31.0
California Ave.	East Meadow Drive	33.0
”	Charleston Road	33.4
Castro	Rengstorff	34.7
Mountain View	Bailey Ave.	35.6
”	Castro St.	35.9
”	Easy St.	36.5
”	Whisman Rd.	36.8
”	Alviso Road	37.1
Sunnyvale	Mary Ave.	37.9
”	Mathilda Ave.	38.6
** ”	Sunnyvale Ave.	38.9
”	Fair Oaks Ave.	39.3
”	Wolfe Road	39.7
Santa Clara	Lawrence Station Rd.	40.7
College Park	Stockton Ave.	45.6
Lick	Hillsdale Ave.	51.7
Edenvale	Branham Lane	57.3
Oak Grove	Cottle Rd.	53.6
Coyote	Bernal Road	61.0
Gilroy	Bloomfield Road	84.1
Aromas	Carpenteria Road	94.5
West of Eaton	San Juan Road	96.2

---

*Operated by gateman.

**May be operated for eastward movements from house track by operating key release on side of instrument case. Switch key may be removed but circuit must be occupied within one minute or gates will rise.

At the following stations there are crossings protected by gates which are not actuated when trains are stopping at station to receive or discharge traffic until train starts to move toward crossing, and speed of 10 MPH must not be exceeded until gates are down:

Station	Location	Direction	Mile Post
★★San Bruno	Angus Ave.	Westward	11.4
★Millbrae	Millbrae Ave.	Westward	13.7
★★Burlingame	North Lane	Westward	16.2
★★Burlingame	South Lane	Eastward	16.3
★★Burlingame	Howard Ave.	Eastward	16.4
Burlingame	Bayswater Ave.	Eastward	16.5
Bay Meadows	Hillsdale Blvd.	Eastward	20.3
★Hillsdale	Hillsdale Blvd.	Eastward	20.3
★San Carlos	Holly St.	Westward	23.2
Redwood City	Brewster Ave.	Westward	25.2
★★Redwood City	Broadway	Westward	25.4
★★Redwood City	Jefferson Ave.	Eastward	25.6
Atherton	Watkins Ave.	Eastward	28.0
Menlo Park	Encinal Ave.	Westward	28.4
Menlo Park	Glenwood Ave.	Westward	28.6
★Menlo Park	Ravenswood Ave.	Eastward	29.0
★Palo Alto	Palo Alto Ave.	Westward	29.8
Mountain View	Castro St.	Westward	35.9
★Sunnyvale	Mathilda Ave.	Westward	38.6
★Sunnyvale	Sunnyvale Ave.	Eastward	38.9

★Equipped with unit for display of flashing white light. Display of flashing white light indicates gates are down. Trains or engines approaching these crossings after making station stop, entering main track from spurs or station tracks or moving at reduced speed must not enter crossing until flashing white light is displayed or it is known gates are down.

★★Sound detector microphones are located adjacent to the track just east of Broadway Street for westward movements and just west of Jefferson Avenue for eastward movements. Sound detector microphones ate located adjacent to track just west of North Lane for westward movements, just west of South Lane and Howard Ave. for eastward movements, and 400 ft. east of Angus Ave. Trains stopped at station to receive or discharge traffic must sound whistle to actuate the gates and crossings must not be entered until gates are down, as indicated by flashing white light.

Locations at which trains must stop to avoid unnecessary operation at crossing gates while trains are switching or receiving and discharging traffic:

Station	Location	Direction
South San Francisco	East of Signal 91	Westward
Burlingame	East of 17 car marker	Westward
Belmont	80 ft. east of Ralston Ave.	Eastward
** ”	1400 ft. east of Harbor Blvd.	Westward
***San Carlos	400 ft. west of Holly St.	Eastward
Redwood City	20 ft. east of Broadway St.	Westward
Atherton	650 ft. west of Watkins Ave.	Eastward
Menlo Park	20 ft. west of Oak Grove Ave.	Westward
† ”	West of 9 car marker	Eastward
†Palo Alto	150 ft. west of subway	Westward
†Mountain View	400 ft. east of Castro St.	Westward
†Sunnyvale	400 ft. east of Mathilda Ave.	Westward
”	325 ft. west of Signal 388	Eastward
”	255 ft. east of Sunnyvale Ave	Westward
”	550 ft. east of Mary Ave.	Westward

†Applies only to trains loading or unloading mail baggage and express.

**Applies to trains switching Harbor spur when necessary to leave part of train east of Harbor Blvd.

***Applies to trains switching house track when necessary to leave part of train west of Holly St.

At crossings protected by gates, wigwags or other automatic warning devices controlling circuits on tracks other than main tracks, generally, are not actuated except when trains or engines are within short distances of or on the crossing. Crossings must not be entered until gates are down or other warning devices operating.

San Mateo: For movements from house track over First Ave., a member of crew must insert switch key in receptacle, on west end of instrument case at First Ave. and turn key to notify gateman to lower gates.

Public Utilities Commisssion orders require that trains and engines must stop, and member of crew must protect traffic on the following street or highway crossings before movement is made:

Millbrae—Crossing Rollins Road on tracks Nos. 15, 23 and 77.
Broderick Rd. Tracks 103 and 105.
Guittard Rd. Track 105.
David Rd. Track 15.
San Carlos—Old Country Road crossing E-23.4-C.
Redwood City—Crossing on J. W. Poole spur.

Before movement is made by trains or engines over crossing, a member of train crew must protect traffic on the following street crossing:

California Avenue—Park Blvd. on east leg of wye.

RULE 104. The normal position of rigid switches at junctions is as follows:

California Ave.	Vasona Branch, for eastward track,
San Jose	Vasona Branch, for Gilroy line main track,
San Jose Yard	Milpitas line, for freight lead,
Permanente	Permanente Corp., for track No. 1.
Lick	Lick Branch, for eastward main track,
Carnadero	Hollister Branch, for westward main track,
Watsonville Jct.	Santa Cruz Branch, for west leg of wye,
Santa Cruz	Davenport Branch, for Santa Cruz Branch.

Derails on main track:

Olympia at MP 129.23. Derail must be left lined in derailing position when cars are stored on main track east of derail.

RULE 107. Station train indicators are provided in approach to following stations:

Eastward		Westward
South San Francisco		Santa Clara
San Bruno	San Carlos	Sunnyvale
Millbrae	Redwood City	Mountain View
Broadway	California Ave.	Hillsdale
Burlingame	Mountain View	San Bruno
San Mateo	Sunnyvale	
Hayward Park	Santa Clara	
Hillsdale	College Park	
Belmont		

When illuminated these indicators will convey the following information:

TRAIN—Train at platform on opposite track.

CLEAR—Indicator in service.

When neither TRAIN or CLEAR is illuminated, indicator is out of service and report must be made to chief train dispatcher as soon as practicable.

In the morning all eastward passenger trains will favor westward commute trains. In evening all westward passenger trains will favor eastward commute trains.

Particular care must be exercised at such stations as Bayshore, Millbrae, Hillsdale, Belmont and Santa Clara where view of station is limited in both directions, also at 23rd St., Paul Ave. and Butler Rd., where passengers may attempt to cross tracks closely behind westward trains. Under such circumstances yard drags and engines on eastward track must stop and take necessary precautions to avoid injury to patrons.

RULE D-151. San Francisco: End of double track is at King St., east limit of Fourth St. interlocking.

Track designations at San Francisco station are:

Beginning on the north. . . . Station tracks Nos. 1 to 14.

San Jose: End of double track is at MP 45.91, College Park at east end of crossover just west of West Taylor St. subway.

Gilroy: End of double track: Westward trains leaving end of double track from eastward main track will be governed by Signal 805.

RULE D-152. Crossovers between San Frnacisco and San Jose are located as follows:

West end Tunnel No. 3; MP 3.16; between Tunnels Nos. 3 and 4 San Francisco; South San Francisco; San Bruno; Millbrae; Burlingame; Belmont; San Carlos; Redwood Jct.; Menlo Park; California Ave.; Mountain View; Sunnyvale and MP 41.18.

San Mateo: When making eastward movement from middle siding to westward track switches must be lined in following order: inside switch, derail, and westward main track switch. When movement completed line switches back in reverse order.

RULE 221. Train-order office Santa Clara is located in tower.

Bayshore, Redwood Jct. and Sunnyvale are train-order offices for trains originating only.

RULE D-251. Applies on both tracks between San Francisco and San Jose, except when inferior trains moving on main track are delayed in this territory, they must clear time of following first-class trains in accordance with Rule 86 (b).

Applies between Watsonville Jct. and Logan; between Corporal and Gilroy; and between Coyote and Lick.

RULE 285. When dwarf signals for entrance to station tracks Nos. 1 to 14 incl., San Francisco, display indication as shown in Figs. F or G, movement must be made with caution.

RULE 306. The following block signals, equipped with triangular plate bearing the letter "P" have included in their control limits some special protective device. Interlocking signals are listed as "P-I" or "P-SA".

Eastward Signal	Protection	Westward Signal
	Spring switch, east end outbound track, Bayshore	P-I
P-172	Four collision detectors at Poplar, Santa Inez, Mt. Diablo and Tilton Ave., underpasses, San Mateo	P-179
	Spring switch, Milpitas wye, San Jose	P-I
	Spring switch, east end station track No. 5, San Jose	P-I
P-514	Spring switch, end double track, Lick	
	Spring switch, end double track, Coyote	P-635
P-660	Spring switch, west end siding, Perry	
	Spring switch, east end siding, Perry	P-673
P-770	Spring switch, west end siding, Rucker	
	Spring switch, east end siding, Rucker	P-783
P-804	Spring switch, end double track, Gilroy	
	Spring switch, end double track, Corporal	P-SA
P-924	Earthquake detector, Pajaro River bridge Slide detector fence, Logan	P-A
P-SA	Spring switch, end double track, Logan	

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM.

San Jose: Main track signal from 50 feet west of spring switch on wye to Signal 467 on Milpitas line not protected by block signals.

When Signals 463, 463.5, 464, 465, 466 or 467 display stop indication, trains and engines, after stopping, may proceed at restricted speed, provided proceed signal is received from yardman at The Alameda, green flag by day, green light by night, except No. 75 and No. 99 may pass Signal 463 displaying stop indication without stopping at restricted speed, provided proceed signal is received from yardman at The Alameda, green flag by day, green light by night, but must stop to clear crossover between station tracks Nos. 4 and 5 just west of The Alameda.

Signal 464 on Signal Bridge 466 is a diverging route signal governing entrance into station tracks Nos. 1, 2, 3, and 4 from station track No. 4 Lower unit on Signal 466 governs entrance into these tracks through crossover from station track No. 5. When Signal 464 or lower unit of Signal 466 displays yellow aspect, movement into tracks Nos. 1, 2, 3 and 4 must not be made until proceed signal is received from yardman at The Alameda, green flag by day, green light by night, and then movement must not exceed 10 MPH. No signal protection beyond fouling point on these tracks.

When Signals 468.5, 470 or 473 display stop indication, trains and engines may proceed at restricted speed, provided proceed signal received from yardman at Park Ave., green flag by day, green light by night.

Station track No. 5 between Signal Bridge 466 and west limit of San Jose-Lick interlocking west of San Carlos St. overpass is not within interlocking limits, but signal indication will authorize movement of trains and engines between these points on this track. This includes movement to station track No. 5 governed by lower unit on Signal 473 on station track No. 4.

Signal 463.5 governs westward movements from station tracks Nos. 6 to 11 inclusive.

Starting indicators for westward trains on station tracks Nos. 1, 2 and 3 are controlled by yardman at The Alameda, and when displaying red aspect must not be passed unless proceed signal received from yardman, green flag by day, green light by night, and when displaying yellow aspect permit movement with caution to Signal 465.

RULE 513. Bayshore: Before making movement out of spur to San Francsico Union Stock Yards district, lineup must be obtained from signal operator at telephone No. 33267.

RULE 535. SPRING SWITCHES

Spring switches not equipped with facing point locks are located as follows:

Location		Normal Position
Bayshore	East end outbound track	Eastward track
San Jose	East end station Track 5	Main track
San Jose	Milpitas wye switch	Milpitas line main track

Spring switches equipped with facing point locks are located as follows:

Location		Normal Position
Lick	End double track	Eastward track
Coyote	End double track	Westward track
Perry	West end siding	Main track
Perry	East end siding	Main track
Rucker	West end siding	Main track
Rucker	East end siding	Main track
Gilroy	End double track	Eastward track
Corporal	End double track	Westward track
Logan	End double track	Eastward track

RULE 605. INTERLOCKING

o — — sounds of whistle is signal for main track.

When interlocking signal has been cleared for train or engine and to use the route is not desired sound whistle signal o o — o o, for information of signal operator.

One sound of siren or air whistle requires that trains and engines within limits of interlocking must stop.

Fourth Street—San Francisco: Limits extend from dwarf signals on station tracks Nos. 1 to 14 near Fourth St. to westward interlocking signal on signal bridge governing movements on main tracks near Sixth Street.

Leaving signals on station tracks Nos. 1, 2, 3, 13 and 14 San Francisco, are so arranged that signal operator may clear the signals temporarily, even though portion of train is beyond the signal. Before starting, call for signal. The signals on tracks Nos. 1, 2, 3, 13 and 14 are searchlight type, and necessary that trainman or yardman relay signal indication to engineman when they are cleared.

If signal cannot be cleared, movement may be made under Rules 628 and 670. Signal operator will give proceed signal with yellow flag by day and yellow light by night from the tower to authorize movement to the next interlocking signal.

Bayshore: Limits extend from signal 350 feet west of west portal of Tunnel No. 1 to signal 650 feet east of east portal of Tunnel No. 1 on westward main track and from signal 500 feet west of west portal of Tunnel No. 1 to signal at the west portal of Tunnel No. 1 on eastward main track and from signal 150 feet west of west portal Tunnel No. 4 on eastward main track to signal 1850 feet east of east portal Tunnel No. 4 on westward main track and from Signal Bridge, MP 6.74 to signal at MP 6.95 on westward main track, and from Signal Bridge MP 6.74 to signal at MP 7.07 on eastward main track.

All interlocking signals and switches are under the control of Signal Operator at Bayshore.

Tower phones are located adjacent to interlocking signal on the instrument cases.

Dual control switches are equipped with selector lever and hand-throw lever or cranks. When necessary to hand throw switches, permission must be obtained from Signal Operator, Bayshore, and be governed by Rule 772.

Whistle signals governing routes as follows:

For inbound yard, o o — o,

For 1900 district, o — o,

For outbound yard, o — o —.

Telephones located as follows:

Interlocking signal on westward main track 1850 feet east of east portal Tunnel No. 4. Interlocking signal on eastward main track 150 feet west of west portal Tunnel No. 4. Trains and engines delayed by "stop" indication by these signals will communicate with signal operator Bayshore Tower, and be governed by Rule 663(b).

Engines and drags when ready to leave for San Francisco, will use following whistle signals:

For Mission Bay yard, — o —,
For track No. 2, o — o o o,
For track No. 3, o — o o.

Redwood Jct.: Limits extend from signal bridge 740 feet west of tower to signal 700 feet east of tower on San Francisco Subdivision, and to signal 950 feet east of tower on Niles Subdivision.

Whistle signals governing routes as follows:

To Niles Subdivision eastward, — o —,
To Niles Subdivision westward, — o — o,
Movement against current of traffic, o — o o o,
For siding, o o — — o o,
For drill track westward, o o — o,
For Harbor line, o — o o,
For S & W spur, o — — o.

Santa Clara: Limits extend from signal 2150 feet east of tower on San Francisco Subdivision westward main track to signal 1675 feet west of tower on San Francisco Subdivision eastward main track, and on Newark line to signal 1650 west of tower.

Whistle signals govern routes as follows:

For Newark line, o o — — o o,
For Yard, — o —,
Yard to roundhouse, — o — o,
Yard to San Jose passenger station, o o o — o,
Yard to Santa Clara drill track, o — — o,
Yard to drill track, o o — o,
Yard to old team track, o — o o o,
Other yard tracks to tracks Nos. 31, 32 or 33, o o — — o,
Tracks Nos. 31, 32 or 33 to other yard tracks, o — — o o.

College Park: Limits extend from signal 1200 feet west of tower to Signal Bridge 466, and on main track to Signal Bridge 465; and from dwarf signal located 800 feet east of Newhall St. to West Taylor St. subway on No. 1 lead; and from Signal Bridge 466 to signal just west of spring switch at the junction of Milpitas line main track and Milpitas wye.

Electric switch locks on derails and crossover switches within these limits are under control of signal operator. Permission must be obtained to unlock derail or switch. Derail must be thrown first, then switch may be thrown.

Engines to move from roundhouse engine track to San Jose passenger station must not foul No. 1 lead until interlocking signal at inside crossover switch displays indication as shown in Rule 283, Fig. D, or Rule 288, Fig. C for eastward movement to station tracks Nos. 4 or 5.

Telephones are located adjacent to interlocking signals or derails.

Whistle signals for vraious routes:

For westward movement to San Jose yard via No. 2 lead } o — — o,
For No. 1 lead to San Jose yard, o o — — o o,
For College Park freight yard, — o o —,
For Santa Clara drill track, o o o — o —,
For roundhouse, o — — o o,
For Milpitas line, o o — o o.

Bell cord communicating signal between San Jose roundhouse and signal operator to be used in lieu of telephone when requesting authority to make movement from roundhouse to station tracks Nos. 4 or 5. Following code of signals to be used:

Roundhouse to passenger station........One pull of cord
Roundhouse to College Park............Two pulls of cord
For movements in roundhouse yard,
  when necessary to pass eastward
  interlocking signal...............Three pulls of cord

On double track within San Jose Yard limits signal operator may arrange to move trains from one tower to another against current of traffic, after having understanding, by telephone, for each movement. Before moving trains against current of traffic signal operator must know that track to be used is clear of opposing trains and engines.

San Jose-Lick: Limits extend on main track from Signal Bridge 464, to light signal 700 feet east of end of double track at Lick on westward track, and to light signal 500 feet east of double track at Lick on eastward track; and on station tracks 4 and 5 from dwarf signal opposite Signal 473 to their connection with main track east of passenger station; and on Lick Branch to dwarf signal at fouling point; and on Vasona Branch from junction with main track to westward signal located 30 feet west of crossover.

From Vasona Branch movement governed by interlocking signal located 30 feet west of crossover between main track and Vasona Branch. Upper unit governs to station tracks, and lower unit governs to main track. When both units display stop indication and it is desired to use connecting link to spur track No. 808 (California Packing Corporation), after stopping if crossover switches are lined normally and the track is seen to be clear to westward Signal 474.5 located at fouling point 250 feet west of interlocking signal, train or engine may proceed without obtaining permission from signal operator.

Westward Signal 471.5 at Park Ave. subway normally dark until line up is made. After permission received from operator, crossover switches may be lined, and if signal displays proceed indication movement may be made.

Movement to Vasona Branch from station track No. 5 governed by lower unit of Signal 470 located east of station, and from main track governed by lower unit of signal located 400 feet west of junction switch.

Telephones are located adjacent to interlocking signals or derails.

RULE 663(b). BAYSHORE TOWER AND SAN JOSE INTERLOCKING. Signal operator at Bayshore Tower interlocking and signal operator at San Jose interlocking may authorize movements under provisions of this rule after it has been ascertained indication lights on control panel are illuminated indicating dual control switches are in proper position and locked for movement without requiring dual control switch to be placed in hand position as required by Rule 772.

When indication lights on control panel are not illuminated, movements may be authorized under provisions of this rule; however, before making a facing point or trailing point movement over dual control switches, such switches must be placed in hand position in accordance with Rule 772 and locked until movement over switch has been completed. When movement has been completed, switch must be returned to normal position and selector lever restored to motor position and locked.

RULE 680. AUTOMATIC INTERLOCKING

San Jose-Lick Line (WPRR Crossing): Limits extend from signal located 700 feet west of crossing to signal 700 feet east of crossing.

Signals, switches and derails normally in position for SP movements. When semi-automatic signals indicate "stop," Rule 663(c) and 509(b) will govern.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and requires movement as follows
W	273	Redwood Jct.	Westward trains via Dumbarton must stop short of Signal 273 and wait until indicator is extinguished.
W	7 ft. mast MP 44.20	Santa Clara	Eastward trains, except first-class, stop short of Reed St. and wait until indicator is extinguished and flashing white light is displayed. Display of flashing white light authorizes movement to interlocking limits Santa Clara.

RULE 760. CENTRALIZED TRAFFIC CONTROL Limits extend from MP 86.4 Corporal to MP 93.2 Logan.

GENERAL REGULATIONS

RULE 825. Cars must not be stored within 150 feet of all crossings of 9th Street at Gilroy, except spur track No. 125 serving Filice Warehouse.

Cars must not be stored within 150 feet of crossings of Salinas Road at Watsonville Jct.

When freight trains stop on receiving track in Watsonville Jct. yard, and road engine is detached, trainmen will set sufficient hand brakes on the rear of westward trains, and on the head end of eastward trains to secure trains.

RULE 826. Watsonville Jct.: Indicator lights above each end of tracks leading to Union Ice Co. dock governing movements on those tracks as follows:

Green:	Tracks may be used for train or switching movements.
Yellow:	Tracks may be entered and engines, cars or cabooses added or detached.
Red:	Tracks may be entered but cars on tracks must not be coupled to or moved. Trains made up on these tracks must not depart until it has been ascertained indicator displays green aspect.
Not Lighted:	Must be considered as displaying most restrictive indication and icing platform foreman must be contacted for instructions before cars are coupled to or moved.

RULE 830. Redwood City: Passenger trains, stopping at passenger station, should stop to clear Broadway crossing.

Westward trains stop at Belmont to clear Ralston Rd. crossing.

Eastward trains stop at Broadway to clear Broadway crossing.

Westward freight trains on Vasona Branch must not leave cars between Approach Circuit sign and El Camino Real while switching.

RULE 836. Cars must not be shoved ahead of engine on descending grade Permanente to Simla.

AIR BRAKE RULES

RULE 3. Standard brake pipe pressure for freight trains and mixed trains is 90 pounds.

RULE 17. On passenger trains, between Olympia and MP 127.60 and between MP 124.40 and MP 121.80, three retaining valves for six cars; four retaining valves for eight cars; five retaining valves for ten cars; and seven retaining valves for twelve cars must be turned up on head end of the train.

All retaining valves must be turned up in freight trains Felton to Santa Cruz. Retaining valves on loads must be placed in high pressure position.

All retaining valves must be turned in high pressure position on loaded cars and in low pressure position on empty cars, Permanente to Simla unless dynamic brake is in operation.

AIR BRAKE RULE 24-B. San Jose and Watsonville Jct.: When crew is changed, but train consist remains intact, incoming engineer after completing stop will make a full service brake application leaving brakes applied. Outgoing engineer will release brakes and proceed without making prescribed test.

FREIGHT TRAINS

RULE 25. Road test must be made before leaving Permanente as prescribed by this rule.

RULE 31. Eastward trains sound whistle approaching Logan 6:00 AM to 3:00 PM when carmen may be working next to main track.

RULE 33. Maximum tonnage per operative brake between Permanente and Simla is 90 tons and speed must not exceed 10 MPH.

Not more than 40 cars will be handled in train, Permanente to Simla.

The maximum tonnage per operative brake between Olympia and Santa Cruz is 90 tons.

Speed of freight trains, when tonnage per operative brake exceeds 60 tons, must not exceed 12 MPH, Olympia (MP 129.72) to Felton (MP 127.40), and MP 124.40 to MP 121.80.

When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH, except when gross tonnage exceeds 85 tons per operative brake, maximum speed must not exceed 25 MPH on descending grades of 1.2% to 1.5% and 20 MPH on descending grades in excess of 1.5%.

Weight of units not using their dynamic brakes in road engines must be added to weight of cars and summation thereof divided by the number of cars having operative brakes to determine the tons per operative brake in train.

Grades where such restrictions apply are designated below:

Watsonville Jct. to Olympia (San Francisco Subdivision)

Eastward MP	107.5 to 108.8	(Grade in excess of 1.5%)
"	110.1 to 110.4	"
"	111.1 to 111.4	"
"	112.3 to 112.7	"
"	113.7 to 114.1	"
"	114.6 to 115.1	"
"	115.7 to 116.0	"
"	117.4 to 117.6	"
"	118.8 to 119.1	"
Westward MP	117.8 to 117.6	"
"	113.7 to 113.3	"
"	111.0 to 110.7	"
"	110.0 to 109.5	"

PASSENGER TRAINS

RULE 39. Running test must be made on westward trains before reaching spring switch at end double track, Lick.

MISCELLANEOUS

10. Freight trains or engines with freight cars must not operate over station tracks Nos. 2, 3, 4 or 5 in San Jose Passenger station unless authorized by yardmaster or his representative.

Engines listed must not operate on tracks shown below:

Class of Engine		Restricted Tracks
DP, DF-1 to 12	Burlingame	Burlingame Material spur.
"	Howest	H. E. Casey spurs.
"	San Carlos	Drill spur on bay side of main track; west end of house track.
"	Redwood Jct.	S & W spur.
	Redwood Jct.	On line to Redwood Harbor; All spurs off Dumbarton line.
"	Menlo Park	Peninsula Bldg. Matl. Co. spur.
"	Palo Alto	All spurs leading off drill track.
"	Mountain View	Shell Oil spur; beet spur.
"	Sunnyvale	All spurs off both drill tracks except Schuckl, National Can spur, Libby and Berry Growers spurs.
"	Morganhill	Dried fruit spur.
"	Lick Branch	All tracks.
DF-101 to 112	San Mateo	Team Tracks.

All Engines	Santa Cruz	Cowell spur beyond street crossing. To spot cars beyond street crossing use reach.
"	Logan	Granite Rock Co. bunker loading tracks; scale track; stock pile tracks and beyond engine restriction sign at west end of empty set-out tracks Nos. 1, 2 and 3.

Trains entering stub-end tracks San Francisco passenger station must stop at least fifty feet from bumper.

Engines equipped with pilot plow are prohibited over tracks adjacent to station platforms at San Francisco and San Jose.

11. Load limit (car and contents):

San Francisco-Watsonville Jct.	263,000 pounds
San Bruno-Daly City	240,000 pounds
Redwood Jct.-Redwood Harbor	240,000 pounds
California Ave.-Vasona	240,000 pounds
Simla-Permanente	240,000 pounds
San Jose-Vasona	240,000 pounds
Lick-Alamitos	240,000 pounds
Carnadero-Hollister	240,000 pounds
*Watsonville Jct.-Olympia	230,000 pounds
Santa Cruz-Davenport	230,000 pounds

*Trains containing cars with truck centers of not less than 22-ft. having gross weight of car and lading in excess of 220,000-lbs. but not exceeding 230,000-lbs. must not be operated in excess of 5 MPH over structures at MP 112.57 and MP 112.93, near Aptos.

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars	
Gilroy	52	(Water)
Watsonville Jct.	7½	(Water)
(Hollister Branch)		
Hollister	8	(Water)

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

MP	Location	Description	
0.00	San Francisco	Station umbrella sheds	Side
0.24	"	4th St. interlocking tower	Side
0.00-1.30	"	Dwarf signals	Side
1.28	"	Mariposa St. bridge	Overhead
1.29	"	AT&SFRy bridge	Overhead
1.34-1.68	"	Tunnel No. 1	Overhead and side
1.73	"	22nd Street bridge	Overhead
1.91	"	23rd Street bridge	Ovrehead
1.93-2.14	"	Tunnel No. 2	Overhead and side
3.15	"	Oakdale Avenue bridge	Overhead and side
3.19-3.65	"	Tunnel No. 3	Overhead and side
4.15	"	Paul Ave. bridge	Overhead and side
4.26-4.95	Bayshore	Tunnel No. 4	Overhead and side
9.07	South San Francisco	Signal bridge	Overhead
25.58	Redwood City	Signal bridge	Overhead
26.10	"	Signal bridge	Overhead
29.69	Palo Alto	San Francisquito Creek bridge	Overhead and side
45.99	San Jose	Signal bridge	Overhead
46.90	"	Station umbrella sheds	Side
119.70	Santa Cruz	San Lorenzo River bridge	Side
121.45 to 121.68	Eblis	Tunnel No. 6	Overhead and side
125.60 to 125.66	Big Trees	Tunnel No. 5	Overhead and side
126.35	Big Trees	San Lorenzo River bridge	Side
126.43	Big Trees	Redwood tree	Side
126.70	Big Trees	Redwood tree	Side
126.72	Big Trees	Redwood tree	Side

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard, and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
On Redwood Harbor spur	10
On Moffett Field spur	10
On Permanente spur	15
San Jose, passenger trains on station track No. 5:	
Eastward, end of double track to Signal Bridge 464	45
Eastward, Signal Bridge 464 to passenger station	30
Westward, passenger station to end double track	20
San Jose, passenger trains on station track No. 4:	
Westward, passenger station to Signal Bridge 464	30
Westward, Signal Bridge 464 to end of double track	45
Eastward, end of double track to passenger station	20
San Jose, freight trains on station tracks Nos. 4 and 5:	
Between end of double track and crossover at Julian St.	20
San Jose, passenger trains on station tracks Nos. 4 and 5:	
In either direction between passenger station and connection with main track east of station	30
Through all sidings, yard tracks and other tracks with engine running backward	10

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 5, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 6 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
EASTWARD, SAN FRANCISCO TO WATSONVILLE JCT.:			
0.00 to 0.62	20	20	20
0.62 to 1.80	25	25	25
1.80 to 3.10	50	40	30
3.10 to 8.10	60	40	30
8.10 to 11.01	60	50	60
11.01 to 19.00	70	55	70
19.00 to 24.52	79	55	70
★24.52 to 26.40 (Redwood City)	45	45	45
26.40 to 29.70	79	55	70
29.70 to 30.64	70	55	70
30.64 to 44.00	79	55	70
44.00 to 45.91 (end of double track)	60	55	60
45.91 to 46.90	15	15	15
46.90 to 47.29 (spring switch)	15	15	15
47.29 to 47.53 (power switch)	30	30	30
47.53 to 49.00	50	45	50
49.00 to 51.50	75	55	70
51.50 to 51.81 (55.70)	65	55	65
55.70 to 63.21	79	55	70
63.21 to 63.23 (spring switch)	25	25	25
63.23 to 73.78	79	55	70
73.78 to 73.96	60	55	60
73.96 to 79.50	79	55	70
★79.50 to 81.00 (Gilroy)	25	25	25
81.00 to 83.41	60	50	60
83.41 to 86.47	65	50	65
86.47 to 86.49 (spring switch)	25	25	25
86.49 to 87.94	50	50	50
87.94 to 88.94	35	30	35
88.94 to 92.05	45	45	45
92.05 to 92.97	35	30	35
92.97 to 92.99 (spring switch)	25	25	25
92.99 to 94.38	55	50	55
94.38 to 98.00	70	55	70
98.00 to 100.00	45	30	45
100.00 to 100.40	35	30	35

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
WESTWARD, WATSONVILLE JCT. TO SAN FRANCISCO:			
100.40 to 100.00	35	30	35
100.00 to 98.00	45	30	45
98.00 to 94.38	70	55	70
94.38 to 92.99	55	50	55
92.99 to 92.97 (spring switch)	25	25	25
92.97 to 92.05	35	30	35
92.05 to 88.94	45	45	45
88.94 to 87.94	35	30	35
87.94 to 86.49	50	50	50
86.49 to 83.41	65	50	65
83.41 to 81.00	60	50	60
★81.00 to 79.50 (GILROY)	25	25	25
79.50 to 73.96	79	55	70
73.96 to 73.78	60	55	60
73.78 to 55.70 (51.81)	79	55	70
51.81 to 51.32	65	55	65
51.32 to 51.30 (spring switch)	35	35	35
51.30 to 49.00	75	55	70
49.00 to 47.53	50	45	50
47.53 to 47.29 (spring switch)	30	30	30
48.29 to 46.90	15	15	15
46.90 to 45.91 (end of double track)	15	15	15
45.91 to 45.86	25	25	25
45.86 to 44.00	60	55	60
44.00 to 26.40	79	55	70
★26.40 to 24.52 (Redwood City)	45	45	45
24.52 to 19.00	79	55	70
19.00 to 11.01	70	55	70
11.01 to 8.10	60	50	60
8.10 to 3.10	60	40	30
3.10 to 1.80	50	40	30
1.80 to 0.62	25	25	25
0.62 to 0.00	20	20	20

★Regulated by City ordinance. Speed may be resumed after engine of eastward train has passed Ninth St. crossing MP 80.90 and after engine of westward train has passed Leavesly Road crossing MP 79.58.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH, except 65 MPH authorized between Watsonville Junction and Santa Margarita, consistent with local restrictions account grade and other conditions, provided trains:

1. Do not exceed 120 cars and 40 tons per operative brake; or,
2. When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake
70	60
75	59
80	58
85	57
90	56
95	55

Number of Cars	Tons Per Operative Brake
100	54
105	53
110	52
115	51
120	50

SPEED RESTRICTIONS FOR TRAINS: Maximum speed fo trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 5, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 6 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
EASTWARD, SAN JOSE TO SIMLA (VIA VASONA BRANCH):			
47.21 to 47.38	10	10	10
47.38 to 47.60	20	20	20
47.60 to 53.05	30	30	30
48.06 to 47.86	10	10	10
47.86 to 47.61	①25	①25	①25
47.61 to 39.00	①35	①30	①35
EASTWARD, SAN BRUNO TO DALY CITY:			
13.55 to 7.39	15	15	15
EASTWARD, SOUTH SAN FRANCISCO TO BADEN	15	15	15
EASTWARD, LICK TO ALAMITOS:			
55.34 to 55.52	..	15	15
55.52 to 58.99	..	20	20
EASTWARD, CARNADERO TO HOLLISTER:			
82.99 to 83.01 (junction switch)	15	15	15
83.01 to 94.40	35	35	35
94.40 to 95.81	20	20	20
EASTWARD, WATSONVILLE JCT. TO OLYMPIA:			
100.46 to 100.70 (junction switch)	15	15	15
100.70 to 101.40	25	25	25
101.40 to 102.20	20	20	20
102.20 to 112.57	25	25	25
112.57 to 113.00	20	20	20
113.00 to 119.20	25	25	25
★★119.20 to 120.00	20	20	20
★★120.00 to 121.20	15	15	15
★★121.20 to 122.50	20	20	20
★★122.50 to 123.10	15	15	15
123.10 to 126.50	15	15	15
126.50 to 129.72	25	20	25
EASTWARD, SANTA CRUZ TO DAVENPORT:			
79.35 to 80.86 (120.42) (junction switch)	20	20	20
80.86 to 81.36	15	15	15
81.36 to 91.08	20	20	20

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
WESTWARD, SIMLA TO SAN JOSE (VIA VASONA BRANCH):			
39.00 to 47.61	①35	①30	①35
47.61 to 47.86	①25	①25	①25
47.86 to 48.06	10	10	10
53.05 to 47.60	30	30	30
47.60 to 47.38	20	20	20
47.38 to 47.21	10	10	10
WESTWARD, DALY CITY TO SAN BRUNO:			
7.39 to 13.55	15	15	15
WESTWARD, BADEN TO SOUTH SAN FRANCISCO	15	15	15
WESTWARD, ALAMITOS TO LICK:			
58.99 to 55.52	..	20	20
55.52 to 55.34	..	15	15
WESTWARD, HOLLISTER TO CARNARDERO:			
95.81 to 94.40	20	20	20
94.40 to 83.01	35	35	35
83.01 to 82.99 (junction switch)	15	15	15
WESTWARD, OLYMPIA TO WATSONVILLE JCT.:			
129.72 to 126.50	25	20	25
126.50 to 123.10	15	15	15
★★123.10 to 122.50	15	15	15
★★122.50 to 121.20	20	20	20
★★121.20 to 120.00	15	15	15
★★120.00 to 119.20	20	20	20
119.20 to 113.00	25	25	25
113.00 to 112.57	20	20	20
112.57 to 102.20	25	25	25
102.20 to 101.40	20	20	20
101.40 to 100.70	25	25	25
100.70 to 100.46 (junction switch)	15	15	15
WESTWARD, DAVENPORT TO SANTA CRUZ:			
91.08 to 81.36	20	20	20
81.36 to 80.86	15	15	15
80.86 to 79.38 (junction switch)	20	20	20

★★ICC. Regulation.

①With DF-500 class engines, 30 MPH.

①DS-101, 109, 113, 114, 117, 118, 119, 120, 121, 122 class engines must not exceed 25 MPH, and DF-603, 605, 606, 607, 608 and 609 class engines must not exceed 30 MPH between Vasona and Simla.

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	San Francisco and Morganhill Watsonville Jct. to Morganhill	Morganhill to Watsonville Jct. Morganhill to San Jose	California Ave. to Vasona San Jose to Vasona	Vasona to California Ave.	Vasona to San Jose	Watsonville Jct. and Santa Cruz	Santa Cruz to Davenport	Davenport to Santa Cruz	Santa Cruz and Olympia	Gilroy and Hollister
DP-3, 4, 7	6000 to 6004, 6017, 6018, 5900 to 5909, 5916, 5917	2425	5500								
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915 6019 to 6033, 5918 to 5924 6034 to 6045, 6059 to 6066	2425	5525								
DP-12	6046 to 6054	2425	5500								
DP-13	6067, 6068	2250	5525								
DF-1 to 12	6138 to 6461, 8022 to 8303, except	2700	2700								
	with 61:16 gear ratio										
	with 60:17 gear ratio	2175	4750								
DF-100	5200 to 5202										
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	3725	5000				1725	1925	3400	⑨⑪950	4625
DF-109, 111	4903 to 4905, 5250 to 5252										
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	4600	10000	2600	3350	10000	1800	①950			
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	5225	10000	3050	3900	10000	2100	2350	4025	⑥1175	5375
DF-200 to 206	5100 to 5120										
DF-300 to 304	4600 to 4623, 4700 to 4703										
DF-305, 306	4624 to 4633										
DF-307	4634 to 4645	2775	4000	1800	4000	4000	1300	1375	2400	⑰700	3250
DF-500, 501	4800 to 4815	5075	10000	3000	3800	10000					
DF-502	4816 to 4818	4225	10000								
DF-602, 603, 605 to 607, 611, 612, 616	5600 to 5719, 5780 to 5799, 5800 to 5844, 5872 to 5893	2900	10000	1700	2150	10000	1175	1300	2225	⑫650	
DF-608 to 610, 613 to 615	5720 to 5729, 5845 to 5871	3000	10000	1750	2200	10000	1200	1325	2300	⑭625	3025
DS-1 to 8	1000 to 1032	1150	4000	800	1050	4000	550	625	1075	④275	1475
DS-9 to 12	1033 to 1090										
DS-100 to 109, 111, 115, 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	1750	4000	⑮1275	⑯1650	4000	⑩875	③975	⑬1700	⑦⑧1475	2275
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	2250	4000	1300	1675	4000	875	975	1700	⑤475	2325
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	2150	4000	1225	1600	1225	850	950	1650	⑥450	2200
DS-200, 201	1900 to 1903										

①Rating Olympia to Santa Cruz, 2600.
③Rating for DS-109, 775.
④Rating Olympia to Santa Cruz, 825.
⑤Rating Olympia to Santa Cruz, 1300.
⑥Rating Olympia to Santa Cruz, 1250.
⑦Rating for DS-109, 350.
⑧Rating Olympia to Santa Cruz for DS-100 to 108, 111, 1300.
⑧Rating Olympia to Santa Cruz, 2525, for DF-100, 1025.
⑩Rating for DS-109, 675.
⑪Rating for DS-109, 1800.
⑫Rating Olympia to Santa Cruz, 1700.
⑬Rating for DS-109, 1350.
⑭Rating Olympia to Santa Cruz, 1750.
⑮Rating DS-109, 1000.
⑯Rating DS-109, 1300.
⑰Rating Olympia to Santa Cruz, 1900.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 10-J. Speed signs to left of track:

Eastward	Reading	Westward	Reading
		MP 118.37	79–55
MP 120.75	79–60	MP 163.10	79–55
MP 211.15	50		
MP 228.37	45		
MP 234.34	35		

Westward speed sign at MP 106.67 reading 40 is located 1.17 miles instead of three-fourths mile from restriction.

Eastward speed sign at MP 117.30 reading 25 is located 1.07 miles instead of three-fourths mile from restriction.

RULE 21. Identification of superior trains in CTC limits between Santa Margarita and San Luis Obispo must be made and such identification will apply at Santa Margarita or San Luis Obispo.

Identification of superior trains in CTC limits between Watsonville Jct. and Salinas must be made and such identification will apply at Salinas.

RULE 21-C. Watsonville Jct. Engines may display indicators from train yard to roundhouse and from roundhouse to train yard.

San Luis Obispo. Train indicators on trains arriving San Luis Obispo may be displayed until engine reaches roundhouse but must be removed immediately on arrival at roundhouse.

RULE 82-A. Crew ordered for No. 141 may assume schedule at Monterey without clearance.

Trains must obtain clearance Monterey only when operator is on duty.

Trains to Monterey Branch must obtain clearance bearing chief dispatcher's OK before leaving Castroville, only when train order operator on duty.

RULE 83. When unable to obtain identification of first-class trains, engines may use main track within Salinas yard limits under flag protection.

RULE 83-A. At the following stations, only the trains indicated will register:

Castroville. . .Trains to or from Monterey Branch and trains originating or terminating.
Salinas . . . . . .Trains originating or terminating.

Registration of eastward light engines, terminating at San Luis Obispo, may be telephoned on arrival at roundhouse to train order operator who must enter same on register and verify by repeating registration.

RULE 83-B. At open train-order offices, trains may register by ticket as follows:

Watsonville Jct .Nos. 98, 372, 126, 374, 76, 154, 371, 373, 75, 141 and 151.
Castroville. . . . .Trains to or from Monterey Branch.

RULE 85. A section must not pass and run ahead of another section of the same schedule in CTC limits, between Watsonville Jct. and Salinas and between San Luis Obispo and Santa Margarita, without first exchanging train orders with the section to be passed, each section to change indicators and display signals if necessary.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following stations:

West MP		East MP
96.11	Watsonville Jct.	101.25
109.58	Castroville.	111.70
	" (Monterey Branch).	112.09
113.24	Salinas	124.10
	" (Spreckels Branch)	123.87
142.44	Soledad	144.65
162.17	King City	164.72
233.86	Santa Margarita	236.81
249.56	San Luis Obispo	254.00
123.30	Monterey	127.66
127.70	Pacific Grove	129.88

Watsonville Jct.: Eastward freight trains, except Nos. 372 and 374 must not pass Signal 984 unless proceed signal received from yardman, green flag by day, green light by night.

Westward freight trains, except Nos. 371 and 373 must not pass Signal 1001 unless proceed signal received from yardman, green flag by day, green light by night.

RULE 99. Pacific Coast Aggregates Co. will do switching at Lapis. When necessary for SP crews to enter jointly operated tracks they must provide adequate protection to avoid collision.

Engines moving between the west yard limit sign Pacific Grove and east yard limit sign Monterey will move as provided by Rule 99 and the first sentence of Rule S-99-B.

RULE 99-C. Will apply on Monterey Branch.

RULE 103-A. Automatic crossing gates:

King City: Bitterwater Road crossing MP 163.4. Eastward trains, stopping on main track to do switching must stop 500 feet west of crossing to avoid unnecessary operation of gates. White marker post 500 feet west of crossing.

San Luis Obispo: Foothill Blvd. crossing MP 250.5. Gates will raise after time expires when trains in siding stop clear of crossing. When train is ready to proceed, gates must be lowered manually by inserting switch key in receptacle located on post on either side of crossing. Turn key one half turn to right. Crossing must be occupied within one minute or gates will raise.

Paso Robles: Westward trains, stopped at station, blocking 10th Street and westward trains or engines on siding, or trains delayed between 10th and 13th Streets must not exceed 10 MPH between 12th and 13th Streets and must not enter 13th Street until gates are down.

Eastward trains leaving train west of Signal 2158, stop 250 feet west of signal. When train ready to depart, gates must be lowered by member of crew inserting switch key in receptacle located on Signal 2158.

Trains and engines must stop and member of crew must protect traffic while crossing highway 101 over spur to Camp Roberts near McKay.

Public Utilities Commission orders require that trains and engines must stop, and member of crew must protect traffic on the following street or highway crossings before movement is made:

Spreckels Jct.—Airport Blvd. crossing on east end yard track No. 410.
Monterey—Hoffman Ave. crossing on Custom House Packing Co. spur.
Castroville—Crossing on D'Arrigo Bros. Co. spur.
Ord—State Highway crossing on tracks Nos. 2 and 3 at MP 119.50 but must wait until automatic warning device has been operating 20 seconds or more before crossing over highway.
Salinas—John St. crossing on tracks Nos. 200, 248 and 250.

RULE 104. The normal position of rigid switches at junctions is as follows:

Castroville. . . . .Monterey Branch, for Salinas line.
Spreckels Jct. . .Spreckels Branch, for Salinas line.

RULE 105. No. 1 siding at Salinas extends from Signal 1164 to crossover just west of Signal 1178. No. 2 siding extends from crossover just east of Signal 1178 to crossover just west of Signal 1186.

Siding at Gonzales extends from west switch to crossover at station building.

Siding on station side of main track at Soledad is designated as No. 2 siding, and siding on opposite side of main track is designated as No. 1 siding.

Siding on ocean side of main track at McKay is designated as No. 2 siding and siding on opposite side of main track is designated as No. 1 siding.

Santa Margarita: Siding extends from the end of CTC MP 236.6 to spring switch MP 232.92, capacity 364 cars, and will be used by westward trains only, unless otherwise directed by train dispatcher. Crossover switches between main track and siding MP 234.2 must not be used unless authorized by train dispatcher.

RULE 211. Eastward trains receiving an eastward proceed "SA" signal at west end of Salinas, MP 116.4, are authorized to proceed on main track to train order office.

RULE 221. Castroville is train order office for trains via Monterey branch only.

Salinas is train order office for eastward trains and for westward trains originating.

RULE 306. The following block signals equipped with treangular plate displaying the letter "P" have included in their control limits some special protective device:

Eastward Signal	Protection	Westward Signal
	Spring switch, end of double track, Watson ville Jct.	P-SA
P-A	Spring switch, west end siding, Castroville	
	Spring switch, west switch, Monterey branch.	
	Spring switch, east end siding, Castroville.	P-A
P-SA	Spring switch, west end No. 1 siding, Salinas.	
P-1878	Fire and collision detector Sargent Creek bridge, MP 188.15	P-1889
P-2328	Spring switch, west end siding, Santa Margarita	
P-A	Slide detector fence, Chorro	P-A
P-A	Fire detector, Steiner Creek bridge, Goldtree	P-2493

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

RULE 516. Overlap posts:

Spreckels Jct.	Westward trains.
Santa Margarita	Eastward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location		Normal Position
Watsonville Jct.	End double track	Westward track
Castroville	West end siding	Main track
Castroville	Switch to Monterey branch	Main track
Castroville	East end siding	Main track
Salinas	West end No. 1 siding	Main track
Santa Margarita	West end siding	Main track

RULE 705. Letter type indicators.

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows:
S.	Eastward	West end	Trains via Salinas enter siding.
	"A" Signal	Castroville	Trains via Ord enter Monterey Branch.
S.	Westward "A" Signal	East end Castroville	Trains via Moss Landing enter siding.
S.	Eastward "SA"	West end Salinas	Enter siding No. 1.
M.	1191	Salinas	Proceed on main track to fouling point west end Siding No. 1, Salinas, MP 116.43.

RULE 760. CENTRALIZED TRAFFIC CONTROL

Limits extend from end of double track Watsonville Jct. to west switch No. 1 siding Salinas.

Limits extend from east end siding Santa Margarita to end of double track San Luis Obispo.

Lower unit of eastward signal at end double track San Luis Obispo governs only to CTC limit at fouling point on westward track, and trains and engines must not accept proceed indication for diverging route until verbal understanding has been had with yardmaster or his representative that protection had been provided on westward track, except that proceed signal from yardman, green flag by day or green light by night, may be accepted as authority to move from CTC limit to the first switch leading to yard tracks only.

RULE 292. "A" Signal west end of double track San Luis Obispo: When signal displays stop indication, train after stopping may proceed without calling train dispatcher.

GENERAL REGULATIONS

RULE 825. When freight trains stop on receiving track in Watsonville Jct. yard and road engine is detached, trainmen will set sufficient hand brakes on the rear cars on westward trains to secure trains.

Cars must not be left on storage track between Spreckels Jct. and Spreckels within 100 feet of Hunter Lane crossing at MP 121.8, and Harkins Road crossing at MP 122.2.

When freight trains stop on receiving track at San Luis Obispo and road engine is detached, trainmen will set sufficient hand brakes on the head end of eastward trains to secure trains.

Portable rail skids are hung on posts at lower end of sidings at:

Santa Margarita Cuesta Serrano Chorro Goldtree

When necessary to leave cars on any of these sidings permission must first be obtained from chief train dispatcher, after which rail skid must be placed on rail and leading wheel of first car in descending direction run onto the rail skid, and hand brakes set if brakes are operative, before engine is detached. Train crews picking up cars from these sidings must remove rail skid and return it to proper post and lock it in place with switch lock.

RULE 827. Beet train without dynamic brakes in operation Tunnel No. 6 to San Luis Obispo must stop 10 minutes at Serrano for wheel heat radiation and train inspection.

RULE 830. King City: Through freight trains picking up and/or setting out cars must not block Lonoak road crossing at MP 164.3.

AIR BRAKE RULES

RULE 17. Retaining valves must be used on passenger trains on descending grades as follows:

EASTWARD....Tunnel No. 6 to San Luis Obispo.

With three dynamic brakes in operation and handling over 2500 tons, one retaining valve for each 165 tons in train.

With two dynamic brakes in operation and handling over 1700 tons, one retaining valve for each 165 tons in train.

With one dynamic brake or no dynamic brakes in operation, all accessible retaining valves must be turned up but if more than four head-end cars on which retaining valves are not accessible, stop must be made after running test has been completed leaving Santa Margarita and before reaching summit and such retaining valves turned up.

WESTWARD....Tunnel No. 6 to Santa Margarita.

No retaining valves unless requested by the engineer.

Retaining valves must be used on freight and mixed trains on descending grades as follows:

EASTWARD....Goldtree to Camp San Luis Obispo (on spur)

With no dynamic brakes in operation, one retaining valve for each 65 tons in train.

WESTWARD....Tunnel No. 6 to Santa Margarita.

With four dynamic brakes in operation and handling over 5125 tons, one retaining valve for each 125 tons in train.

With three dynamic brakes in operation and handling over 3750 tons, one retaining valve for each 125 tons in train.

With less than three dynamic brakes in operation, one retaining valve for each 70 tons in train.

EASTWARD....Tunnel No. 6 to San Luis Obispo.

With four dynamic brakes in operation and handling over 4125 tons, one retaining valve for each 125 tons in train.

With three dynamic brakes in operation and handling over 3100 tons, one retaining valve for each 125 tons in train.

With less than three dynamic brakes in operation, one retaining valve for each 65 tons in train.

When dynamic brakes are not used on helper engines, tonnage of such engines must be added to that of train in determining the number of retaining valves required.

When majority of cars in freight train consist of loaded beet cars (series SP-358000-359014) and train exceeds 75 tons per operative brake, all retaining valves must be in low pressure (horizontal) position, from Tunnel No. 6 to San Luis Obispo.

Between San Luis Obispo and Santa Margarita trains handled by DF-603 to 611 class engines must not use more than four dynamic brakes; with DF-500 or 501 class engines not more than two dynamic brakes may be used; with two DF-500 or 501 and two DF-603 to 611 class engines not more than three dynamic brakes may be used; with one DF-500 or 501 and three DF-603 to 611 class engines four dynamic brakes may be used.

Units on which dynamic brakes are not in use must have dynamic brake jumper cable disconnected.

FREIGHT TRAINS

RULE 22. Trainmen must not couple air hose on outgoing trains at San Luis Obispo until train is made up and caboose on the train. Coupling the caboose to the rear of the train will be considered as an indication that the train is made up and yardmen have completed their work. Yardmen must not perform switching on, or couple other cars to a train on which the caboose has been attached, without instructions from the yardmaster, who will see to it that members of the crew are notified in advance.

RULE 24-B. Watsonville Jct. and San Luis Obispo: When crew is changed, but train consist remains intact, incoming engineer after completing stop will make a full service brake application leaving brakes applied. Outgoing engineer will release brakes and proceed without making prescribed test.

RULE 25. Rear-end test must be made as prescribed in paragraph (b) as follows:

Santa Margarita...Eastward trains only when continuity of brake is disturbed.

RULE 33. The maximum tonnage per operative brake Tunnel No. 6 to Santa Margarita is 70 tons, and from Tunnel No. 6 to San Luis Obispo and on spur between Goldtree and Camp San Luis Obispo is 65 tons.

Tunnel No. 6 to San Luis Obispo: Trains handling loaded beet cars (series SP 358000-359014) must be limited to 95 such loads and must not exceed 95 tons per operative brake and speed of 20 MPH.

When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH, except when gross tonnage exceeds 85 tons per operative brake, maximum speed must not exceed 25 MPH on descending grades of 1.2% to 1.5% and 20 MPH on descending grades in excess of 1.5%.

Grades where such restrictions apply are designated below

Castroville to Lake Majella (Salinas Subdivision)

Eastward MP	116.5 to 117.0	(Grade in excess of 1.5%)
“	117.9 to 118.1	“
“	119.9 to 120.9	“
“	122.2 to 123.1	“
Westward MP	121.3 to 120.9	“
“	119.9 to 119.1	“
“	117.9 to 117.0	“
“	114.5 to 114.1	(Grade in excess of 1.2%)

RULE 39. Running test must be made immediately after passing summit in Tunnel No. 6 in both directions.

TRAIN HANDLING

RULE 60. Changes in dynamic braking force must be made gradually when practicable. On descending grades, dynamic brake on freight trains must be reduced to one-half of maximum 500 feet before entering and 1500 feet after passing through turnout or crossover and during adjustment of slack following release of train air brakes.

MISCELLANEOUS

10. Engines listed must not operate on tracks shown below:

Class of Engine		Restricted Tracks
DP, DF-1 to 12.	Castroville...	All industry and spur tracks.
“	Salinas......	Leads 4, 35, 55, 57, 200, 210, and 250, and all industry spurs; Lead 115 east of girder-rail crossing; also spurs 151 and 153.
“	Lapis.......	Spur.
“	Seaside......	Siding.
“	Retreat.....	Spur.
“	Monterey...	House track; team track; and all industry tracks.

11. Load limit (car and contents):

Watsonville Jct.-San Luis Obispo........	263,000 pounds
Castroville-Lake Majella...............	240,000 pounds
Spreckels Jct.-Spreckels................	240,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars	
Watsonville Jct.	7½	(Water)
Salinas	11	(Water)
Soledad	7½	(Water)
King City	36½	(Water)
(1 corral 2½ cars no water)		
San Ardo	12	(Water)
Paso Robles	40	(Water)
(1 corral 2 cars no water)		
Santa Margarita	18½	(Water)
San Luis Obispo	27	(Water)

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

MP	Location	Description	
110.72	Castroville....	Signal bridge...............	Overhead
155.28– 155.54	Metz..........	Tunnel No. 5½...................	Side
113.46– 113.60	....	Salibas River bridge...........	Side
200.55– 200.67	....	Salinas River bridge.	Overhead and Side
222.03	Templeton....	Overhead crossing...............	Side
223.39	....	Graves Creek bridge............	Side
239.29– 239.97	Cuesta........	Tunnel No. 6.......	Overhead and side
240.11– 240.37	Thyle.........	Tunnel No. 7.......	Overhead and side
240.61– 240.70	“	Tunnel No. 8.......	Overhead and side
240.86– 240.97	“	Tunnel No. 9.......	Overhead and side
242.26	Serrano........	Signal bridge.............	Overhead
245.85– 245.99	Chorro........	Tunnel No. 11......	Overhead and side
248.26	Goldtree......	Signal bridge.............	Overhead
251.16	Hathaway....	Overgrade crossing.	Overhead and side
251.22	“	Overgrade crossing..............	Side

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 5, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 6 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY MP MP Column:	PASSENGER TRAINS 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
EASTWARD, WATSONVILLE JCT. TO SAN LUIS OBISPO:			
100.40 to 100.70 (end double track)	35	30	30
100.70 to 100.74 (spring switch)	25	25	25
100.74 to 103.80	50	50	50
103.80 to 105.50	40	40	40
105.50 to 108.21	50	50	50
108.21 to 118.37	79	60	70
★118.37 to 120.75 (Salinas)	25	25	25
120.75 to 147.68	79	60	70
147.68 to 149.25	50	50	50
149.25 to 152.83	55	55	55
152.83 to 154.00	50	50	50
154.00 to 155.53	65	60	65
155.53 to 158.00	70	60	70
158.00 to 163.10	79	60	70
163.10 to 164.00	60	60	60
164.00 to 167.43	79	60	70
167.43 to 168.80	50	50	50
168.80 to 175.58	79	60	70
175.58 to 175.82	70	60	70
175.82 to 185.50	79	60	70
185.50 to 188.17	60	60	60
188.17 to 190.19	55	55	55
190.19 to 192.92	65	60	65
192.92 to 193.70	40	40	40
193.70 to 194.35	30	30	30
194.35 to 197.43	70	60	70
197.43 to 197.80	60	60	60
197.80 to 200.79	70	60	70
200.79 to 202.45	60	60	60
202.45 to 206.00	70	60	70
206.00 to 211.90	60	60	60
211.90 to 212.16	50	50	50
212.16 to 213.93	60	60	60
213.93 to 216.80	65	60	65
216.80 to 217.23	50	50	50
217.23 to 219.15	60	60	60
219.15 to 220.02	40	40	40
220.02 to 227.20	55	55	55
227.20 to 227.46	50	50	50
227.46 to 229.15	55	55	55
229.15 to 231.36	45	45	45
231.36 to 235.10	60	60	60
235.10 to 236.75	35	35	35
236.75 to 248.30	25	25	25
248.30 to 251.50	40	40	40
251.50 to 252.10	25	25	25

TERRITORY MP MP Column:	PASSENGER TRAINS 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
WESTWARD, SAN LUIS OBISPO TO WATSONVILLE JCT.:			
252.10 to 251.50	25	25	25
251.50 to 248.30	40	40	40
248.30 to 236.75	25	25	25
236.75 to 235.10	35	35	35
235.10 to 231.36	60	60	60
231.36 to 229.15	45	45	45
229.15 to 227.46	55	55	55
227.46 to 227.20	50	50	50
227.20 to 220.02	55	55	55
220.02 to 219.15	40	40	40
219.15 to 217.23	60	60	60
217.23 to 216.80	50	50	50
216.80 to 213.93	65	60	65
213.93 to 212.16	60	60	60
212.16 to 211.90	50	50	50
211.90 to 206.00	60	60	60
206.00 to 202.45	70	60	70
202.45 to 200.79	60	60	60
200.79 to 197.80	70	60	70
197.80 to 197.43	60	60	60
197.43 to 194.60	70	60	70
194.60 to 193.92	40	40	40
193.92 to 193.70	30	30	30
193.70 to 192.92	60	60	60
192.92 to 190.19	65	60	65
190.19 to 188.17	55	55	55
188.17 to 185.50	60	60	60
185.50 to 175.82	79	60	70
175.82 to 175.58	70	60	70
175.58 to 168.80	79	60	70
168.80 to 167.43	50	50	50
167.43 to 164.00	79	60	70
164.00 to 163.10	60	60	60
163.10 to 158.00	79	60	70
158.00 to 155.53	70	60	70
155.53 to 154.00	65	60	65
154.00 to 152.83	50	50	50
152.83 to 149.25	55	55	55
149.25 to 147.68	50	50	50
147.68 to 120.75	79	60	70
★120.75 to 118.37 (Salinas)	25	25	25
118.37 to 108.21	79	60	70
108.21 to 105.50	50	50	50
105.50 to 103.80	40	40	40
103.80 to 100.74 (end double track)	50	50	50
100.74 to 100.40	35	30	35

(Continued on page 21)

★Regulated by City ordinance.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH, except 65 MPH authorized between Watsonville Jct. and Santa Margarita, consistent with local restrictions account grade and other conditions, provided trains:

1. Do not exceed 120 cars and 40 tons per operative brake; or
2. When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake
70	60
75	59
80	58
85	57
90	56
95	55
100	54
105	53
110	52
115	51
120	50

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 5, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 6 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY MP MP	PASSENGER TRAINS Column: 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
EASTWARD, CASTROVILLE TO LAKE MAJELLA:			
110.10 to 110.70	15	15	15
110.70 to 111.40	35	20	35
111.40 to 113.90	35	35	35
113.90 to 114.73	35	30	35
114.73 to 114.91	30	25	30
114.91 to 119.70	35	25	35
119.70 to 120.00	30	20	30
120.00 to 121.23	35	25	35
121.23 to 122.38	25	20	25
122.38 to 125.70	35	25	35
125.70 to 127.30	25	20	25
127.30 to 130.23	15	15	15
EASTWARD, SPRECKELS JCT. TO SPRECKELS		15	15

TERRITORY MP MP	PASSENGER TRAINS Column: 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
WESTWARD, LAKE MEJELLA TO CASTROVILLE:			
130.23 to 127.30	15	15	15
127.30 to 125.70	25	20	25
125.70 to 122.38	35	25	35
122.38 to 121.23	25	20	25
121.23 to 120.00	35	25	35
120.00 to 119.70	30	20	30
119.70 to 114.91	35	25	35
114.91 to 114.73	30	25	30
114.73 to 113.90	35	30	35
113.90 to 111.40	35	35	35
111.40 to 110.70	35	25	35
110.70 to 110.10	15	15	15
WESTWARD, SPRECKELS TO SPRECKELS JCT	..	15	15

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, ballon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Through all sidings, yard tracks and other tracks with engine running backward	10
Castroville wye	5
East leg of wye Spreckels Jct	5

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Watsonville Jct. and King City	King City to Santa Margarita	Santa Margarita to King City	Santa Margarita to San Luis Obispo	San Luis Obispo to Santa Margarita	Monterey and Ord MP 129.50 Castroville to Ord Monterey to Ord	Ord to Castroville Ord to Monterey
DP-3, 4, 7	6000 to 6004, 6017, 6018, 5900 to 5909, 5916, 5917	2425	1925	2600	625	625		
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915 6019 to 6033, 5918 to 5924 6034 to 6045, 6059 to 6066	2450	1925	2625	625	625		
DP-12	6046 to 6054	2425	1925	2600	625	625		
DP-13	6067, 6068	2250	1775	2425	575	575		
DF-1 to 12	6138 to 6461, 8022 to 8303, except	2700	2175	2925	750	750		
	with 61:16 gear ratio							
	with 60:17 gear ratio	2175	1700	2300	575	575		
DF-100	5200 to 5202							
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	4500	3100	4050	1185	975	2125	
DF-109, 111	4903 to 4905, 5250 to 5252							
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	4600	3600	4950	1200	1200		
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	5225	4175	5625	1475	1475	2600	5375
DF-200 to 206	5100 to 5120							
DF-300 to 304	4600 to 4623, 4700 to 4703							
DF-305, 306	4624 to 4633							
DF-307	4634 to 4645	2775	2500	3400	900	875	1525	3250
DF-500, 501	4800 to 4815	5075	4075	5450	1425	1425	2150	4450
DF-502	4816 to 4818	4225	3425	4525	1200	1200		
DF-602, 603, 605 to 607 611, 612, 616	5600 to 5719, 5780 to 5799, 5800 to 56844, 5872 to 5893	2900	2300	3100	800	800		
DF-608 to 610, 613 to 615	5720 to 5729, 5845 to 5871	3000	2375	3200	850	825	1475	3025
DS-1 to 8	1000 to 1032	1150	1000	1150	285	285	675	1475
DS-9 to 12	1033 to 1090							
DS-100 to 109, 111, 115, 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	1750	1525	1750	635	455	①1075	②2275
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	2250	1775	2425	635	590	1075	2325
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	2150	1700	2300	575	575	1050	2200
DS-200, 201	1900 to 1903							

①Rating for DS-109, 850.
②Rating for DS-109, 1800.

Following are tonnage ratings for diesel locomotive Models GP-20, RS-32, U25-B and GP-30:

TERRITORY	RATING TONS			
	DF-617 DF-620	DF-618	DF-619 DF-622	DF-621
San Francisco and San Jose, San Jose to Morganhill and Watsonville Junction to Morganhill	2950	3550	3500	3325
Morganhill to Watsonville Junction, Morganhill to San Jose	8000	8000	8000	8000
Watsonville Junction to King City	2950	3550	3500	3325
King City to Santa Margarita	2350	2825	2775	2650
Santa Margarita to King City	3200	3825	3750	3575
Santa Margarita to San Luis Obispo, San Luis Obispo to Santa Margarita	800	975	975	900

Gear ratios of diesel locomotive units Class DF-1 to DF-15 inclusive, are changed from time to time to permit various maximum speeds. As changes are made a metal tag is placed over transition switch in cabs and isolation switch in booster unit specifying maximum speed unit may be operated.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 14(l). Whistle signal must be sounded and bell kept ringing when entering or leaving the Sugar Co.'s yard at Alvarado or approaching their road crossing.

RULE 14(m). Whistle will not be sounded one mile before reaching stations between:

West Oakland and Elmhurst.

RULE 16(e). Oakland. Rule 16(e) is CANCELLED.

RULE 16(k). Oakland: When standing, apply or release air brakes.

RULE 26. West Oakland (Passenger Yard): Blue signs reading "Men at Work" permanently installed on base of indicator lights at each end of Tracks 2 to 6, inclusive, Track 19, and at east end of stub Tracks 13 to 18, inclusive. When indicator lights display blue aspect, these tracks must not be entered nor cars or cut of cars moved or coupled to nor other equipment placed so as to obstruct the view of signs or lights. When indicator lights display yellow aspect, blue sign reading "Men at Work" will not apply to these tracks.

Electric switch locks installed on west switches Tracks 2 to 5, inclusive, Track 19, and on east switches Tracks 14 to 18, inclusive.

Power operated derails installed on west end Track 6 and on east end Tracks 2 to 6, inclusive, and Track 13.

RULE 82-A. Trains to Niles Subdivision receiving clearance at San Jose may leave Santa Clara without clearance.

No. 90 may assume corresponding schedule at Santa Clara without clearance.

RULE 83. Identification may be made by eastward trains between Magnolia Tower and Elmhurst to be applied at end of double track. Reduce speed sufficiently to permit identification and comply with Rule 14(k).

Identification may be made by eastward trains between Redwood Jct. and Belle Haven to be applied at end of double track. Reduce speed sufficiently to permit identification.

Train register check of superior trains obtained at West Oakland may be applied at end of double track, Elmhurst, outside of D-251 limits between Sacramento and West Oakland and end of double track Martinez on Tracy line provided superior trains moving in the same direction are not passed in interlocking limits or territory where Rule D-251 is applicable.

RULE 83-A. At the following stations only trains indicated will register:

West Oakland	Trains originating or terminating.
Newark	
Niles	
Livermore	

Extra trains will register at Niles Tower.

Trains originating or terminating San Jose Yard will register at Santa Clara.

RULE 83-B. At open train-order offices trains may register by ticket as follows:

Niles Tower	All trains.
Redwood Jct.	All trains.
Santa Clara	All trains.
Tracy	Nos. 57-58.

RULE 93. Yard limits in which the provisions of Rule 93 will apply, are established at the following points:

West MP		East MP
	Oakland (Martinez line)	17.35
	" (Niles line)	15.82
	" (Alvarado line)	14.01
14.02	Mulford	18.00
15.83	Hayward	21.69
24.00	Alvarado	26.00
78.50	Tracy (Martinez-Los Banos line)	85.64
66.50	" (Niles-Lathrop line)	74.37
24.44	Redwood Jct. (San Mateo-Newark line)	28.20
	" (Palo Alto line)	27.17
35.20	Newark (Centerville-Redwood Jct. line)	40.50
28.79	" (Alvarado-Santa Clara line)	34.50
40.51	Niles (Tracy-Redwood Jct. line)	30.67
26.60	" (Hayward-Milpitas line)	30.95
41.70	East Pleasanton	45.89
63.25	" (San Ramon line)	
45.89	Livermore-Ulmar	51.20
54.03	Altamont	55.64
32.00	Milpitas	42.50
43.47	San Jose (Palo Alto-Coyote line)	56.00
43.55	" (Milpitas line)	
43.74	" (Alviso line)	

Oakland: Yardmen must use green flag by day and green light by night when signaling trains to enter or leave yard tracks, except trains departing in either direction from main lines 1 and 2 will be governed by signal indication and signal from yardmen is not required.

Niles: Unless otherwise instructed, eastward trains operating via Decoto enroute to Livermore line at Niles Junction, must take siding at Niles.

Tracy: Trains moving on main track in either direction will move between junction switch, MP 70.62, and west switch of train yard by block signals whose indications will supersede the superiority of trains.

RULE 95. Sections of schedules authorized on Niles Subdivision to or from Santa Clara will apply over San Francisco Subdivision into or out of San Jose.

RULE D-97-A. Will apply as follows: Between West Oakland and Elmhurst; Redwood Jct. and Belle Haven.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against the current of traffic or movements from yard tracks over crossings, must know that gates are down and crossings clear of vehicular traffic before entering crossings.

Station	Location	MP
Magnolia Tower	Adeline St	5.9
Oakland	5th Ave	7.6
Oakland	High St	10.4
Oakland	50th Ave	10.8
Oakland	66th Ave	11.7
Oakland	77th Ave	12.2
Oakland	77th Ave. (drill)	12.3
Oakland	85th Ave	12.6
Elmhurst	98th Ave	13.3
San Leandro	Davis Street	14.7
Centerville	Fremont Blvd	40.1
Mulford	Davis Street	14.9
Mulford	Williams Street	15.5
Mulford	Marina Blvd	15.8

Oakland: When moving against current of traffic flagman must protect crossing before movement is made over Grove, Broadway, Franklin and Webster Streets and 29th Avenue.

Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew.

Oakland-Market St.	Pacific Pool Warehouse No. 7,
Mulford	Crossing Maitland Drive on Airport drill, L-16.5-C.

RULE 105. Hayward: Siding extends from MP 18.74 to MP 19.77.

Newark: Siding on Tracy-Redwood Jct. line is west of Elmhurst-Santa Clara line crossing extending from MP 37.27 to MP 36.19.

Siding on Elmhurst-Santa Clara line is east of Tracy-Redwood Jct. line crossing extending from MP 31.00 to MP 32.22.

East Pleasanton: Siding is first track north of main track extending from MP 42.91 to MP 44.02.

RULE 221. West Oakland is a train-order office only for trains originating.

Light type train order signal, not equipped with semaphore arms, installed on the west side of the Fruitvale Tower Building..

Mulford, Niles and East Pleasanton are train-order offices only for trains originating when operator is on duty.

Warm Springs is train-order office for originating or terminating trains only.

Eastward trains to San Francisco Subdivision may leave Santa Clara without clearance.

Trains from Niles Subdivision must obtain clearance before leaving Redwood Jct.

RULE D-251. Will apply as follows: Between West Oakland and Elmhurst.

RULE 291-A. Flashing yellow lamp unit on mast of eastward interlocking signal on Coach Yard lead is displayed in both eastward and westward directions. Illumination of this flashing light observed from either direction will authorize and eastward reverse move toward 16th St. or Bays following a westward move into Coach Yard which does not clear the interlocking plant.

RULE 306. Following block signals equipped with a triangular plate displaying the letter "P", have included in their control limits some special protective device:

Eastward Signals	Protection	Westward Signals
P-SA	Elmhurst	
	Spring switch to Stonehurst Line	Elmhurst P-SA Niles Line
	Spring switch, end of double track	Elmhurst P-SA Santa Clara Line
	Spring switch, Shinn	P-423
	Spring switch, end double track, Redwood Jct.	P-285
P-290	Spring switch, Niles	
	Spring switch, Milpitas wye, San Jose	P-I
P-710	Spring switch, junction to Los Banos Line, Tracy	
	Spring switch to yard, Tracy	P-829

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Niles: Signal 291 governs movements, through junction switch, from Tracy line. Signal 293 governs movements, through junction switch, from San Jose line.

Top unit of Signal P-290 governs movements to Tracy line and lower unit governs movements to San Jose line.

Tracy: Top unit of Signal P-710 governs movements toward Lathrop. Bottom unit governs movement toward Los Banos.

Signals 713, 825 and 827 are approach clearing. Signal 713 will revert to stop position when 600-ft. track circuit in front of station building is occupied for approximately four minutes. A second approach circuit is located 185 feet east of MacArthur Blvd. to clear Signal 713 for movements to continue.

Approach circuit to Signal 825 on Track No. 1 begins 185 feet east of MacArthur Blvd.

Approach circuit sign is north of main track 185 feet east of MacArthur Blvd.

Top unit of Signal P-829 governs movements on main track. Bottom unit governs movements to yards.

Signals 716 and 723 on Track No. 1 at crossovers near MP 72 govern movements over crossovers to enter main track only. These signals will not be lighted when crossovers are lined normal. Time circuits are provided to cut out west control of Signal 716, 2 minutes and 40 seconds after crossover is lined; east control of Signal 723, 6 minutes and 10 seconds after crossover is lined; and west control of Signal 736, 5 minutes and 20 seconds after crossover is lined. If signals fail to clear at expiration of time interval, Rules 509 and 510 will govern.

Top unit of Signal 735 governs movements on main track. Bottom unit governs movements into yard over crossover.

Top unit of Signal 736 on Track No. 1 governs movements to the freight lead. The center unit governs movements to the main track, over the crossover. The bottom unit, when displaying a lunar light governs movements to the Freight Lead per Rule 289.

RULE 516. Overlap posts:

Hayward (1200 feet west of Signal 199) . . Westward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location		Normal Position
Redwood Jct.	End double track	Westward track
Tracy	Junction switch MP-71.16 to Los Banos line	Lathrop subdivision

Spring switches not equipped with facing point locks are located as follows:

Location		Normal Position
West Oakland	1st and 16th line	16th St. line
Elmhurst	Westward track to Stonehurst Line	Stonehurst Line
Elmhurst	End of Double Track	Westward track
Shinn	East end siding	Main track
Niles	Junction switch west of station	San Jose line
San Jose	Milpitas wye switch	Milpitas line main track

RULE 605. INTERLOCKING

On double track within Oakland yard limits signal operator may arrange to move trains from one tower to another against the current of traffic, after having an understanding by telephone for each movement. Before moving trains against current of traffic signal operator must know that track to be used is clear of opposing engines and trains.

West Oakland (First and Cedar Sts.): Limits extend from signals at Cedar Street on Niles line to signals 427 feet east of MP 5 on Martinez line.

Eastward signals on First Street lead 227 feet west of First Street freight lead crossing, eastward signal on washer track 144 feet west of freight lead, eastward signals on 16th Street lead at clear point, 187 feet west of freight lead switch, westward signals on diesel tracks, coach lead and yards lead 40, 50 and 60.

Telephones to 16th Street Tower and West Oakland Tower are located at signal locations west of 16th Street Tower.

An eastward light type interlocking signal installed on Track 2, 100 feet west of the 1st Street Freight Lead crossing.

A flashing yellow lamp unit installed on the mast of the eastward interlocking signal on the Coach Yard lead track and will be displayed in both eastward and westward directions. Illumination of this flashing yellow light observed from either direction will authorize an eastward reverse move toward 16th Street or Bays following a westward move into the Coach Yard which does not clear the interlocking plant.

Trains and engines moving out westward limits, West Oakland interlocker toward Bays are operating on yard tracks.

Magnolia Tower (First and Chestnut Sts.): Limits extend on eastward main track from signal 1600 feet west of WPRR crossing to dwarf signal 500 feet east of WPRR crossing, and on westward main track from signal 500 feet east of WPRR crossing to dwarf signal 480 feet west of crossing.

When necessary to perform switching within the interlocking limits, signal operator must designate work limits and clock time limit that must not be exceeded and must immediately actuate signal levers to display proceed indication in interlocking signals governing such movements and place red tags on signal levers controlling such movements. The tags must not be removed or attempt made to change position of power operated switches within such limits until yardmaster or member of crew has orally reported switching completed and clear of work limits.

Employe requesting work limits and clock time limit must state his name, occupation, location and train or engine number. Work and clock time limits granted must be repeated to signal operator and if correct, response "OK" will be given by signal operator.

Fruitvale: Limits on main track extend from Signal Bridge 123 to Signal Bridge 126 at Fruitvale Avenue.

Melrose: Limits extend between interlocking signals on old electric line and on the drill track between interlocking signal on west side of San Leandro Blvd. and interlocking signal on east side of WPRR crossing and is under the control of WPRR train dispatcher.

When signals do not display proceed indication after approach circuit is occupied, a member of crew must contact WPRR train dispatcher by telephone for instructions and permission to operate push button time release.

When necessary to perform switching within the interlocking limits, a member of crew must obtain clock time limit from WPRR train dispatcher and be governed by signal indication. When Klaxon horn is sounded, SP movements must immediately clear interlocking limits.

Cars or engines must not be left on approach circuits located in advance of interlocking signals.

Telephones, push buttons and instructions for operation of push button time release and dual control switches located in boxes on interlocking signal governing eastward movements on old electric line, on side of Instrument House and on instrument case adjacent to crossing of drill track and WPRR track.

Elmhurst: Interlocking limits extend either side of Junction switches between eastward SA signals on eastward and westward tracks and westward SA signal on Stonehurst Line, westward SA signals on Niles and Santa Clara Lines. The Junction switch of Miles Line and Santa Clara Line MP 13.47, is power operated, dual control switch controlled by Signal Operator at Fruitvale.

When necessary to hand throw dual control switch or when extensive switching is to be performed over the power switch permission must be secured from Signal Operator at Fruitvale and Rules 771 and 772 will govern.

Interlocking portion of SA signals controlled by Signal Operator at Fruitvale Tower.

Trains and engines desiring to make an eastward movement from the Westward Track over the crossover, will receive permission from the Signal Operator to hand operate the spring switch. Member of crew, after throwing the switch, will notify Signal Operator the switch is over and points in position before Operator will clear the Signal (4R) for such movements.

When movement is completed switch must be returned to normal position.

Niles Tower: Limits extend from dwarf interlocking signal on Niles line and interlocking signal on Tracy line, 1685 feet west of WPRR crossing to Signal 298 on Milpitas line and to Signal 425 on Centerville line.

Eastward interlocking signal 650 feet west of WPRR crossing governs movements as follows:

Top unit governs movements to Milpitas line.

Lower unit governs movements to Centerville line.

When Signal 420 or Signal 422 display stop indication, train or engine must stop and not proceed until signal displays proceed indication or permission obtained from signal operator.

Junction switches are dual control switches and are under control of signal operator. When necessary to hand throw these switches, permission must be obtained from signal operator and be governed by Rules 771 and 772. Instructions for operation of dual control switch machines are posted in telephone booths.

Derail near east end of yard Track No. 1 at Niles is electrically locked and under control of signal operator at Niles Tower. Instructions for operation by hand when authorized by signal operator are posted inside of lock box.

Whistle signals:
To San Jose, o — —,
To Centerville, — o —,
To Niles, o — o,
To Tracy, — o — o.

Newark: Limits extend from signal 50 feet east of wye switch on Centerville line to signal 1150 feet east of wye switch on Santa Clara line, and to signal 650 feet west of wye switch on Elmhurst line, and to dwarf signals on Redwood Jct. line near Newark station building.

Crossover No. 25 from Santa Clara main track to Santa Clara siding is equipped with dual control switch machines under control of signal operator.

When necessary to hand throw these switches, permission MUST be obtained from the signal operator and be governed by Rules 771 and 772.

Whistle signals:
To Santa Clara, o — —,
To Santa Clara line siding, o — — o,
To Santa Clara line siding extension, — o,
To Redwood Jct, — o — o,
To Dumbarton line siding, — o — o o,
To Centerville, — o —,
To Elmhurst, o — o.

San Francisco Bay drawbridge, MP 32.53 on Redwood Jct. line:

Tracy: Limits extend from westward SA Signal at MP 70.68 to eastward SA Signal at MP 70.64 on the Niles line and to eastward SA Signal at MP 82.18 on the Martinez line.

Position of the junction switch between Niles Subdivision MP 70.66 and Martinez Subdivision MP 82.16 controlled by yardman from control panel located at the base of the Yardmaster's tower.

The junction switch between Niles Line MP 70.66 and Martinez Line MP 82.16 is equipped with a dual control machine. When necessary to hand throw this switch, permission must be secured from the Yardmaster and Rules 771 and 772 govern.

Interlocking portion of the SA signal will be controlled by Tracy Telegraph Operator.

The telegraph operator shall determine that switch has been lined for proper route before clearing a signal.

RULE 663(b) (Interlocking).

Signal operator at
TRACY
FRUITVALE
NILES
NEWARK

may authorize movements under provisions of this rule after it has been ascertained indication lights on control panel are illuminated indicating dual control switches are in proper position and locked for movement without requiring dual control switches to be placed in hand position as required by Rule 772.

When indication lights on control panel are not illuminated movements may be authorized under provisions of this rule; however, before making a facing point or trailing point movement over dual control switches, such switches must be placed in hand position in accordance with Rule 772 and locked until movement over switch has been completed. When movement has been completed, switch must be returned to normal position and selector lever restored to motor position and locked.

RULE 680. AUTOMATIC INTERLOCKING

East Oakland, WPRR Crossing yard tracks, MP 7.70: Limits extend between interlocking signals in approach to both sides of crossing.

Derails within interlocking limits equipped with electric locks and after locks have been released derails may be operated by hand throwing lever on switch stand located at crossing.

WPRR Crossing (Stonehurst Branch), MP 13.80: Limits extend between interlocking signals in approach to both sides of crossing.

Radum, WPRR crossing MP 67.8 (San Ramon Branch): Limits extend between eastward SA signals just west of WPRR crossing and westward interlocking signals just east of WPRR crossing on both legs of wye track.

Signal clearing circuit located 100 feet in advance of eastward interlocking signal on east leg of wye and when occupied will clear signal for trains completing movement over crossing after signal has changed to stop indication account expiration of four minute time interval.

After signal clearing circuit is occupied if signal does not display proceed indication, a member of crew must actuate time release. (Wait four minutes in inclement weather or other conditions before actuating time release.) After time release is actuated signal does not display proceed indication in six minutes, but red indicator on signal mast is illuminated movement may be made through interlocking. If red indicator light is not illuminated and signal displays stop indication, movement must be made under provisions of Rule 663(c).

Signals governing movement from San Ramon Branch to main track will not display proceed indication until junction switch on main track is lined for movement.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows:
W	67	Oakland (First St.)	Freight trains stop, to clear Webster St., (second Crossing east of station) and wait until Signal 67 displays proceed indication.
W	Lattice Pole Approx. 20 Ft. west of 23rd Ave.	Fruitvale Tower	Eastward trains except yard engines stop west of 23rd Ave. and wait until indicator is extinguished, unless authorized by Fruitvale Operator to proceed.
W	273	Redwood Jct	Westward trains via Dumbarton must stop short of Signal 273 and wait until indicator is extinguished.
W	7 ft. mast MP 44.20	Santa Clara	Eastward trains, except first-class, stop short of Reed St. and wait until indicator is extinguished and flashing white light is displayed. Display of flashing white light authorizes movement to interlocking limits Santa Clara.

Milpitas: An illuminated letter type indicator, dispatcher controlled, in service on separate mast 1390 feet west of the west switch Milpitas, will display the letter "W." When the letter "W" in this indicator is illuminated, the Signal 400 at the west end of Milpitas will display red aspect and Signal 388, 4940 feet west of the indicator, will display yellow aspect.

Eastward trains observing yellow aspect in Signal 388 will proceed prepared to stop before reaching the indicator and not proceed until the "W" light is extinguished or proceed indication is displayed by Signal 400, unless verbal authority is received from the train dispatcher or his representative.

GENERAL REGULATIONS

RULE 825. Tracy: All freight trains entering Tracy Yard will tie no less than three hand brakes on the east end unless instructed otherwise by Yardmaster.

Train crews must not release hand brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 830. Milpitas: Westward trains not exceeding 75 cars making pick-up or set-out at Milpitas will stop their train with rear end west of Curtis Way, DA 41.1, crossing.

Westward trains exceeding 75 cars making set-out or meeting eastward trains will stop their train east of Capitol Avenue and wait until eastward train is into clear before proceeding.

Eastward trains having set-out or pick-up at Milpitas will leave their train west of the Battery Box located 400 feet west of the State Highway crossing at MP 40.0 while making set-out or pick-up.

Eastward trains must not exceed 75 cars after set-out or pick-up is made when meeting an opposing train exceeding 75 cars.

AIR BRAKE RULES

RULE 2. Enginemen taking charge of engines for freight and passenger service at West Oakland diesel shop and Tracy diesel shop consider that condensation has been drained from reservoirs, and from moisture and dirt collectors; that sanders are operating properly; that there are no flat spots on wheels.

RULE 17. Retaining valves must be used on freight and mixed trains as follows:

With less than two dynamic brakes in operation, trains consisting of more than 20 cars which average over 75 tons per operative brake must use 10 retaining valves on head end of train on descending grade from Altamont to Midway, or more if requested by engineer.

FREIGHT TRAINS

RULE 22. Tracy: Trainmen must not couple air hose on outgoing trains at Tracy until train is made up and caboose and road engine are on train. Coupling caboose and road engine to train will be considered as an indication that the train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the caboose and road engine have been attached without instructions from the yardmaster, who will see to it that members of the crew are notified in advance.

RULE 24-B. Tracy and Oakland: When crew is changed, but train consist remains intact, incoming engineer after completing stop will make full service brake application leaving brakes applied. Outgoing engineer will release brakes and proceed without making prescribed test.

MISCELLANEOUS

Look out for impaired clearance and bad footing from MP 39 to MP 39.80, Alviso, account levee constructed to hold back high tides.

11. Load limit (car and contents):

Redwood Jct.-Tracy	263,000 pounds
Oakland-San Jose via Niles	263,000 pounds
Elmhurst-Santa Clara	263,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Milpitas	10 (Water)
Newark	5 (Water)
Livermore	12 (Water)

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	Location	Description	
28.9	Henderson	Highway underpass	Side
32.5	Dumbarton	San Francisco Bay drawbridge	Side
34.5	Dumbarton	Newark Slough drawbridge	Side
42.9	Niles Jct	Highway underpass	Side
30.8	Dresser	Alameda Creek bridge	Side
31.5	Farwell	Alameda Creek bridge	Side
38.3	Pleasanton	WPRR overhead bridge	Overhead
55.4	Altamont	Highway overhead bridge	Overhead and side
57.9	Altamont	Tunnel	Side
18.2	San Lorenzo	San Lorenzo Creek bridge	Overhead and side
24.2	Decoto	WPRR overhead bridge	Overhead
29.4	Niles	Highway underpass	Side
36.2	Drawbridge	Warm Springs Slough bridge	Side
29.4	Niles Tower	Street underpass	Side

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 5 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 6 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY REGARDLESS OF TIME.

TERRITORY MP MP Column:	PASSENGER TRAINS 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
EASTWARD, REDWOOD JUNCTION TO TRACY:			
26.23 to 26.25 (jct. switch)	20	20	20
26.25 to 28.35	35	35	35
28.35 to 28.41 (end double track)	25	25	25
28.41 to 31.51	60	60	60
31.51 to 33.00 (bridge)	30	30	30
33.00 to 37.00	60	60	60
37.00 to 37.51 (Newark)	15	15	15
37.51 to 42.23	50	50	50
42.23 to 42.40	15	15	15
★★42.40 to 42.78	15	15	15
42.78 to 43.00 (29.60) (Niles Jct.)	15	15	15
29.60 to 37.10	25	25	25
37.10 to 40.57	35	35	35
★40.57 to 41.43 (Pleasanton)	25	25	25
41.43 to 46.66	45	45	45
★46.66 to 47.48 (Livermore)	30	30	30
47.48 to 52.00	50	50	50
52.00 to 63.00	25	25	25
63.00 to 70.66	50	50	50
70.66 to 71.16 (jct. Los Banos)	35	35	35
NILES TO SAN JOSE YARD:			
29.00 to 29.43	15	15	15
★★29.43 to 29.81	15	15	15
29.81 to 45.17	60	60	60
45.17 to 47.39	15	15	15
WEST OAKLAND TO SANTA CLARA:			
4.40 to 5.00	15	15	15
5.00 to 5.93	30	30	30
5.93 to 5.94 (WP crossing)	20	20	20
5.94 to 6.20	30	30	30
★6.20 to 7.20 (Market to Oak St.)	15	15	15
7.20 to 10.50	30	30	30
10.50 to 13.43	40	40	40
13.43 to 13.50 (jct. switch and crossover)	15	15	15
13.50 to 13.70	30	30	30
13.70 to 28.79	60	60	60
28.79 to 31.00 (Newark)	35	35	35
31.00 to 39.00	60	60	60
39.00 to 40.10	40	40	40
40.10 to 43.73	60	60	60
43.73 to 44.48	40	35	40
44.48 to 44.59	15	15	15

TERRITORY MP MP Column:	PASSENGER TRAINS 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
WESTWARD, TRACY TO REDWOOD JUNCTION:			
71.16 to 70.66 (jct. Los Banos line)	35	35	35
70.66 to 63.00	50	50	50
63.00 to 52 00	25	25	25
52.00 to 47.48	50	50	50
★47.48 to 46.66 (Livermore)	30	30	30
46.66 to 41.43	45	45	45
★41.43 to 40.57 (Pleasanton)	25	25	25
40.57 to 37.10	35	35	35
37.10 to 29.60 (43.00) (Niles jct.)	25	25	25
43.00 to 42.78	15	15	15
★★42.78 to 42.40	15	15	15
42.40 to 42.23	15	15	15
42.23 to 37.51, except:	50	50	50
over spring switch east end Shinn	35	35	35
37.51 to 37.00	15	15	15
37.00 to 33.00	60	60	60
33.00 to 31.51 (bridge)	30	30	30
31.51 to 28.41	60	60	60
28.41 to 26.25	35	35	35
26.25 to 26.23 (jct. switch)	20	20	20
SAN JOSE YARD TO NILES:			
47.39 to 45.17	15	15	15
45.17 to 29.81	60	60	60
★★29.81 to 29.43	15	15	15
29.43 to 29.00	15	15	15
SANTA CLARA TO WEST OAKLAND:			
44.59 to 44.48	15	15	15
44.48 to 43.73	40	35	40
43.73 to 40.10	60	60	60
40.10 to 39.00	40	40	40
39.00 to 31.00	60	60	60
31.00 to 28.79	35	35	35
28.79 to 13.70	60	60	60
13.70 to 13.50	30	30	30
13.50 to 13.43 (jct. switch)	15	15	15
13.43 to 10.50	40	40	40
10.50 to 7.20	30	30	30
★7.20 to 6.20 (Oak St. to Market St.)	15	15	15
6.20 to 5.94	30	30	30
5.94 to 5.93 (WP crossing)	20	20	20
5.93 to 5.00	30	30	30
5.00 to 4.40	15	15	15

Trains must not exceed 20 MPH when passing trains being serviced between Cedar and Kirkham Sts., Oakland.

★Regulated by City ordinance. ★★ICC Regulations.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH (65 MPH when specifically authorized) consistent with local restrictions account grade and other conditons, provided trains:

1. Do not exceed 120 cars and 40 tons per operative brake; or,
2. When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake
70	60
75	59
80	58
85	57
90	56
95	55
100	54
105	53
110	52
115	51
120	50

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS........See Page 13

SPECIAL INSTRUCTIONS—NILES SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 5 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 6 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY MP MP Column:	PASSENGER TRAINS 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
EASTWARD, AGAINST CURRENT OF TRAFFIC:			
West Oakland to Elmhurst, except: (subject to lesser speeds on westward track)	40	40	40
★★5.65 to 6.05	20	20	20
★★9.55 to 10.13	20	20	20
ELMHURST TO NILES JUNCTION:			
13.43 to 13.50 (jct. switch)	15	15	15
13.50 to 29.00	50	50	50
29.00 to 29.60	25	25	25

TERRITORY MP MP Column:	PASSENGER TRAINS 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
WESTWARD, AGAINST CURRENT OF TRAFFIC:			
Elmhurst to West Oakland (subject to lesser speeds on eastward track), except:	40	40	40
★★10.13 to 9.53	20	20	20
★★ 6.05 to 5.65	20	20	20
NILES JUNCTION TO ELMHURST:			
29.60 to 29.00	25	25	25
29.00 to 13.50	50	50	50
Thru Jct. Switch MP 13.43	15	15	15

★★ICC. Regulation.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH (65 MPH when specifically authorized) consistent with local restrictions account grade and other conditions, provided trains:

1. Do not exceed 120 cars and 40 tons per operative brake; or,
2. When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake
70	60
75	59
80	58
85	57
90	56
95	55
100	54
105	53
110	52
115	51
120	50

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Ravenswood, on spur	10

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Oakland and Santa Clara	Oakland and San Jose Yard via Niles	Niles and Redwood Jct.	Tracy to Altamont	Livermore to Altamont	Niles to Livermore	Altamont to Niles Altamont to Tracy	
DP-4, 7, 12	6000 to 6004, 6017, 6018, 6046 to 6054, 5900 to 5909, 5916, 5917	3400	2650	3725					
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6064, 5910 to 5915 6019 to 6095, 5918 to 5924	3375	2625	3700	1100		1400	5525	
DP-13	6067 to 6068	3225	2525						
DF-1 to 12	6138 to 6470, 8022 to 8305, except	3750	2950	4100	1275	1350	1600	6050	
	with 61:16 gear ratio								
	with 60:17 gear ratio								
DF-100	5200 to 5202								
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5248, 5253 to 5278	5000	4075	5000	1675	1775	2150	5000	
DF-109, 111	4903 to 4905, 5252	5000	5000	5000	2550	2575	3050	5000	
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5339 to 5444, 5449 to 5493	6100	4800	6750	2050	2175	2575	10000	
DF-123, 126	5448, 5494 to 5507	6225	4850	6850	2050	2200	2575	10000	
DF-127	7000 to 7020								
DF-500, 501	4800 to 4815	7400	5775	8000	2425	2575	3050	8000	
DF-502	4816 to 4818								
DF-602, 603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5895	3950	3130	4360	1350	1425	1690	10000	
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	4100	3250	4500	1400	1475	1750	10000	
DF-800, 801	9000 to 9017	7625	7625	8450	2500	2650	3150	10000	
DS-1 to 8	1000 to 1032	1625	1275	1775	520	550	660	4000	
DS-9 to 12	1033 to 1090								
DS-100 to 109, 111, 115, 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	2450	1925	2700	800	550	1025	4000	
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	3200	2675	3575	1025	1175	1400	4000	
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596								
DS-200, 201	1900 to 1903								
DS-500 to 506	5100 to 5120	2000	1575	2200	625		850	3000	
DS-600 to 604	4600 to 4623, 4700 to 4703	3250	2500	3500		1110	1325	4000	
DS-605, 606	4624 to 4633	3600	2800	4000	1125	1200	1475	4000	
DS-607	4634 to 4645								

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 5. Time at stations between Oakland (16th Street) and Sacramento applies at station sign. Except time for eastward first class trains at Davis via Gerber line applies at east switch north siding.

Time for No. 378 at Sacramento applies at east end Sacramento River bridge MP 88.71.

RULE 14(l). Whistle must be sounded on westward trains immediately on emerging from Tunnel No. 1 at Oleum.

RULE 14(m). Whistle will not be sounded one mile before reaching stations between Oakland 16th Street and San Pablo.

RULE 16(e). Oakland: Rule 16(e) is CANCELLED.

RULE 16(k). Oakland: When standing, apply or release air brakes.

RULE 21-C. Engines to handle trains from Desert Unit West Oakland, may display indicators before leaving West Oakland. Indicators of engines on trains arriving Desert Unit West Oakland, may be displayed until engine reaches West Oakland and must be removed immediately on arrival at delivery track.

RULE 26. West Oakland (Passenger Yard): Blue signs reading "Men at Work" permanently installed on base of indicator lights at each end of Tracks 2 to 6, inclusive, Track 19, and at east end of stub Tracks 13 to 18, inclusive. When indicator lights display blue aspect, these tracks must not be entered nor cars or cut of cars moved or coupled to nor other equipment placed so as to obstruct the views of signs or lights. When indicator lights display yellow aspect, blue sign reading "Men at Work" will not apply to these tracks.

Electric switch locks installed on west switches Tracks 2 to 5, inclusive, Track 19 and on east switches Tracks 14 to 18, inclusive.

Power operated derails installed on west end Track 6 and on east end Tracks 2 to 6, inclusive, and Track 13.

RULE 30. Between the hours of 9:00 PM and 6:00 AM engine bell must not be rung, except in emergency, in city limits of Napa.

RULE 82-A. Trains terminating at Bays will register at West Oakland.

Trains originating Desert Unit, West Oakland will obtain train orders and clearance at West Oakland.

Trains to Western Division at Sacramento originating at Antelope must obtain two clearances, one endorsed Sacramento Division, the other endorsed Western Division. Train orders addressed to such trains at Antelope will apply the same as if addressed to them at Sacramento and may leave Sacramento without clearance.

No. 378 and extra trains, except trains of passenger equipment, from Western Division passing Sacramento will not obtain clearance at Sacramento.

Sacramento Northern trains originating at Sacramento 19th & B Streets, or Sacramento-Yolo Port District connection to Western Division will obtain clearance at Sacramento.

RULE 83. Identification of westward first-class trains between Bahia and Suisun-Fairfield may be made by eastward trains enroute Schellville Branch to be applied at Suisun-Fairfield for crossover movements. Reduce speed sufficiently to permit identification and comply with Rule 14(k).

Train register check of superior trains obtained at West Oakland may be applied at end of double track, Elmhurst, outside of D-251 limits between Sacramento and West Oakland and end of double track Martinez on Tracy line provided superior trains moving in the same direction are not passed in interlocking limits or territory where Rule D-251 is applicable.

RULE 83-A. At the following stations only trains indicated will register:

West Oakland	Trains originating or terminating
Suisun-Fairfield	
Davis	
Avon	
Port Chicago	
Pittsburg	

Sacramento: Trains originating or terminating, except No. 378 and extra trains passing Sacramento to or from Western Division.

Extra trains will register at Lombard.

RULE 83-B. At open train-order offices trains may register by ticket as follows:

Suisun-Fairfield	All trains from Sacramento line to Schellville Branch. All trains from Schellville Branch to Sacramento line.
Davis	All trains to or from West Valley Subdivision, Sacramento Division. All Sacramento Northern Trains.
Lombard	All trains from Schellville to Suisun-Fairfield. All trains from Suisun-Fairfield to Schellville.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP		East MP
	Oakland (Martinez line)	17.35
	" (Niles line)	15.82
	" (Alvarado line)	14.01
27.97	Port Costa	39.24
	" (Benicia spur)	End of track
	" (Tracy line)	37.08
47.05	Suisun-Fairfield	52.45
	" (Schellville Branch)	51.25
74.20	Davis	77.37
	" (Tehama line)	77.39
131.60	Sacramento (Stockton line)	136.33
37.50	Avon-Port Chicago	42.93
	(San Ramon Branch)	58.00
46.31	Pittsburg	51.68
61.00	Brentwood	62.70
78.50	Tracy (Martinez-Los Banos line)	85.64
66.50	" (Niles-Lathrop line)	74.37
59.85	Napa Jct. (Creston-Schellville line)	64.56
	" (Calistoga line)	End of track
	and including Union Branch	
	" (Vallejo line)	End of track
71.72	Schellville (Lombard-Ignacio line)	NWP 38.93
	" (Sonoma line)	NWP 41.70
58.00	Elmira	61.00
	" (Winters Branch)	End of track

Oakland: Yardmen must use green flag by day and green light by night when signaling trains to enter or leave yard tracks, except trains departing in either direction from main lines 1 and 2 will be governed by signal indication and signal from yardmen is not required.

Martinez: No. 10 or No. 12 may make reverse movements against the current of traffic on Eastward Track between Martinez and Signals 340 and 342, Ozol, without providing flag protection for such movements and without obtaining permission from Signal Operator. Signal Operator must not clear Signals 340 or 342 or authorize eastward trains to pass these signals until No. 10 or No. 12 has completed reverse movement against the current of traffic and departed station.

Tracy: Trains moving on main track in either direction will move between junction switch, MP 70.62, and west switch of train yard by block signals whose indications will supersede the superiority of trains.

RULE D-97-A. Will apply as follows: Between Oakland (16th Street) and Sacramento; Martinez and Mococo.

RULE 98. Railroad crossings at grade not interlocked.

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

Trains and engines must approach with caution, and may move over the following crossings without stopping, if crossing clear and no movement approaching on intersecting line:

Benicia: Government Ry., crossing of Benicia spur near Benicia arsenal. If Signal 340 or 341 displays stop indication, flag protection must be provided on intersecting track before movement made over crossing.

Napa Jct.: Big balloon track crossing of Calistoga-Vallejo main track. Schellville line trains using big balloon track need not stop.

Stop clear of the following crossings, then proceed if no movement approaching on intersecting line:

Napa Jct.: Calistoga-Vallejo main track crossing of big balloon track. Calistoga-Vallejo line trains must stop.

Las Juntas: SNRy, crossing of San Ramon Branch.

Nitro: Narrow gauge crossings of spur tracks serving Atlas Powder Company.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against current of traffic or movements from yard tracks over crossings, must know gates are down and crossings clear of vehicular traffic before entering crossings.

Station	Location	MP
*Emeryville	Powell Street	7.2
*Emeryville	65th Street	7.7
*Emeryville	66th Street	7.8
*Emeryville	67th Street	7.9
**Berkeley	Virginia Street	9.6
*Berkeley	Gilman Street	10.1
*Albany	Buchanan Street	10.9
*Richmand	Central Avenue	11.6
*Richmond	47th Street (Stege)	13.1
*Richmond	Cutting Blvd	13.8
*Richmond	23rd Street	14.5
*Richmond	Barrett Avenue	15.1
*Richmond	Roosevelt Avenue	15.3
*Richmond	Pennsylvania Ave	15.4
*Richmond	Kearney Street	15.6
*San Pablo	Chesley Avenue	16.3
*San Pablo	Market Street	16.6
*San Pablo	County Road No. 17	17.1
*San Pablo	County Road No. 20	17.2
**Martinez	Ferry Street	34.7
*Suisun-Fairfield	Cordelia Road	48.3
*Suisun-Fairfield	Union Avenue	49.0
*Suisun-Fairfield	Rio Vista Road	49.1
*Tolenas	Peabody Road	53.7
**Dixon (West)	"A" Street	67.4
**Dixon (East)	First Street	67.6
Vallejo	Georgia Street	67.6
**Port Chicago	Main Street	41.2
Los Medanos	County Road	50.8
Tracy	U. S. Highway 50	81.1

*Do not operate for against current of traffic movements at territory speeds and Rule 103-A will apply.

**Gates are not actuated when trains are stopping at station to receive or discharge traffic until train starts to move toward crossing, and speed of 10 MPH must not be exceeded until gates are down.

Berkeley: Westward passenger trains making station stop must stop with rear of train clear of Virginia Street.

Richmond: Eastward passenger trains stopping at Richmond Station will stop clear of impulse circuit 300 feet west of Barrett Avenue (which is designated by sign reading "Spot") to permit crossing gates to raise for vehicular traffic. When train starts, proceed slowly to permit gates to lower after passing impulse circuit.

Westward passenger trains making station stop must stop with rear of train clear of Barrett Avenue.

Martinez: Crossing Gate Key Control installed at Ferry Street to actuate gates when backup movements made to clear junction switch.

Suisun-Fairfield: Eastward passenger trains stopping at station will stop clear of crossing circuit 80 feet west of Union Avenue designated by sign reading "Spot" on instrument case.

Sound Detector microphone is located at instument case. When ready to proceed, enginemen will sound whistle to activate the crossing gates and proceed slowly to permit gates to be down before train enters the crossing.

Lombard: Westward trains and engines stopping at Lombard Station will stop clear of impulse circuit 200 feet east of State Highway 29 designated by sign reading "SPOT". When train starts, proceed slowly to permit vehicular traffic to clear crossing.

Napa: When switching on or across any street crossing city ordinance requires that member of crew must protect crossing.

Public Utilities Commssion orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew:

Suisun-Fairfield	Crossing Union Ave. when moving against current of traffic, A-49-0,
Thomann	Crossing highway on Napa Valley Cooperative Winery spur, AB-86.0-C,
Vacaville	Crossing on Standard Oil spur, AD-63.15-C,
Davis	Crossing County road on University spur, A-75.7-C,
Port Chicago	Crossing County road on leads to Naval Supply Base, B-40.8-C, B-41.0-C,
Pittsburg	Crossings on industry spurs, B-47.8-C, B-48.1-C,
Brentwood	Crossing highway on Irrigated Farms spur, B-62.6-C.

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows:

Avon	San Ramon line, for siding.
Suisun-Fairfield	Napa Jct. line for west leg of wye to Oakland.
Napa Jct.	Suisun-Fairfield line, for Schellville line, at MP 61.60.
Schellville	Schellville Branch, for NWPRR main track.

Napa Jct.: Track known as big balloon is Schellville line main track.

RULE 105. Suisun-Fairfield: Westward siding is first track north of westward main track extending from MP 49.43 to MP 47.43.

Westward trains entering siding, if length of train permits, must stop with rear of train clear of Union Avenue crossing.

North siding is first track north of main track on Schellville Branch extending from MP 48.94 to MP 49.95, to be used by trains from Schellville Branch to Sacramento line. May be used by other trains only when instructed by dispatcher.

Davis: Eastward siding is first track south of eastward main track extending from MP 75.88 to MP 76.71

Westward siding is first track north of westward main track extending from MP 77.03 to MP 75.73.

North siding is first track west of main track on Gerber line extending from MP 75.79 to MP 76.52.

RULE 107. Station train indicators are provided in approach to following stations:

Eastward	Westward
Berkeley (2)	Richmond
Crockett	
Martinez	
Suisun-Fairfield	

When illuminated these indicators will convey the following information:

TRAIN—Train at platform on opposite track.

CLEAR—Indicator in service.

When neither TRAIN or CLEAR is illuminated, indicator is out of service and report must be made to chief train dispatcher as soon as practicable.

RULE 221. West Oakland, Rodeo and Avon are train-order offices only for trains originating.

RULE D-251. Will apply as follows: On westward track between Sacramento and Oakland (16th Street). On eastward track between Oakland (16th Street) and Sacramento.

RULE 291-A. Flashing yellow lamp unit installed on the mast of the eastward interlocking signal on the Coach Yard lead track and is displayed in both eastward and westward directions. Illumination of this flashing yellow light observed from either direction will authorize an eastward reverse move toward 16th Street or Bays following a westward move into the Coach Yard which does not clear the interlocking plant.

RULE 306. The following block signals equipped with triangular plate bearing the letter "P" have included in their control limits some special protective device. Interlocking signals are listed as "P-I" or "P-SA".

Eastward Signal	Protection	Westward Signal
P-I	Collision detector, highway underpass west end of wye, Davis	P-I
	Spring switch, end double track, Mococo.	P-359
P-510	Collision detector, highway underpass, MP 50.97 (Los Medanos)	P-519
P-710	Spring switch, junction to Los Banos line, Tracy	
	Spring switch to yard, Tracy	P-829
P-SA	Dragging equipment detector, MP 34.8	
	Dragging equipment detector, MP 35.9	P-347

A 2-indication, light type indicator installed just below interlocking signal P-SA located 550 feet west of draw span, and a 2-indication, light type indicator attached to the mast of signal P-347, are designated as dragging equipment indicators.

They will display red aspect with signal at "STOP" when actuated by dragging equipment detector, and lunar white aspect when not actuated by dragging equipment detector.

Crews of trains stopped by signals P-SA or P-347 with the red indicator light illuminated, will inspect their train for dragging equipment.

Signal may be cleared and indicator light changed to lunar white by pressing push button located on signals P-SA and P-347 after first complying with Rule 306.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Cannon: Electric locks installed on crossover switches and on switch for Sacramento Northern connection to the eastward track. Page 4, Special Instructions will govern.

Ozol. When Signals 340 and 342 display stop indication, eastward train or engine must stop and not proceed until signal displays proceed indication or permission to proceed obtained from Signal Operator at Martinez. Telephone located about 100 feet east of Signal 340.

Tracy: Top unit of Signal P-710 governs movements toward Lathrop. Bottom unit governs movement toward Los Banos.

Signals 713, 825 and 827 are approach clearing. Signal 713 will revert to stop position when 600 ft. track circuit in front of station building is occupied for approximately four minutes. A second approach circuit is located 185 feet east of MacArthur Blvd. to clear Signal 713 for movements to continue.

Approach circuit to Signal 825 on Track No. 1 begins 185 feet east of MacArthur Blvd.

Approach circuit sign is north of main track 185 feet east of MacArthur Blvd.

Top unit of Signal P-829 governs movements on main track. Bottom unit governs movements to yard.

Signals 716 and 723 on Track No. 1 at crossovers near MP 72 govern movements over crossovers to enter main track only. These signals will not be lighted when crossovers are lined normal. Time circuits are provided to cut out west control of Signal 716, 2 minutes and 40 seconds after crossover is lined; east control of Signal 723, 6 minutes and 10 seconds after crossover is lined; and west control of 736, 5 minutes and 20 seconds after crossover is lined. If signals fail to clear at expiration of time interval, Rules 509 and 510 will govern.

Top unit of Signal 735 governs movements on main track. Bottom unit governs movements into yard over crossover. Top unit of Signal 736 on Track No. 1 governs movements to the freight lead. The center unit governs movements to the main track, over the crossover. The bottom unit, when displaying a lunar light governs movements to the Freight Lead per Rule 289.

RULE 512. Block indicators adjacent to east switch of crossover and switch to Sacramento Northern connection, Cannon apply to the eastward main track only.

RULE 513. On Westward trip before making crossover movement at Cannon, permission must be received from signal operator, Davis.

On Eastward trip before entering Main Track at Cannon, permission must be received from signal operator, Davis.

RULE 516. Overlap posts.

Los Medanos (250 feet west of Signal 509) . . . . Westward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location		Normal Position
Mococo	End double track	Westward track
Tracy	Junction switch MP 71.16 to Los Banos line	Lathrop Subdivision

Spring switches not equipped with facing point locks are located as follows:

Location		Normal Position
*West Oakland	1st and 16th St. line	16th St. line
*Stege	Seaver wye	East leg of wye
*Ozol	East end siding	Main track
*Ozol	West end siding	Main track
Martinez	Junction switch	Bridge line
*Suisun-Fairfield	East end north siding	Main track
*Lombard	East end siding	Main track
*Lombard	West end siding	Main track
Tracy	MP 82.98 Los Banos main to yard	Yard Track

*Equipped with switch-point indicator.

RULE 605. INTERLOCKING

On double track within Oakland yard limits signal operator may arrange to move trains from one tower to another against the current of traffic, after having an understanding by telephone for each movement. Before moving trains against current of traffic signal operator must know that track to be used is clear of opposing engines and trains.

Trains and engines moving out westward limits, West Oakland interlocker toward Bays are operated on yard tracks.

Oakland, 16th St.: Limits extend from signals 427 feet east of MP 5 on the Martinez line to Signal Bridge 204 and from Signal Bridge 205 to Signal Bridge 206.

Whistle signals:

To West Oakland Yard, o — —,
From AT&SFRy interchange to West Oakland, ——,
To AT&SFRy interchange, o — o.

Telephones to 16th Street Tower and West Oakland Tower located at signal locations west of 16th Street Tower.

Telephones to 16th Street Tower at the following locations:
Signal Bridge 205 west end of Shellmound,
Signal Bridge 206 east end of Shellmound,
East end of Judson Spur, Shellmound.

West Oakland (First and Cedar Sts.): Limits extend from signals at Cedar Street on Niles line to signals 427 feet east of MP 5 on Martinez line.

Eastward signals on First Street lead 227 feet west of First Street freight lead crossing, eastward signal on washer track 144 feet west of freight lead, eastward signals on 16th Streetl ead at clear point, 187 feet west of freight lead switch, westward signals on diesel tracks, coach lead and yard leads 40, 50 and 60.

Telephones to 16th Street Tower and West Oakland Tower are located at signal locations west of 16th Street Tower.

A flashing yellow lamp unit, Rule 291-A, installed on the mast of the eastward interlocking signal on the Coach Yard lead track will and be displayed in both eastward and westward directions. Illumination of this flashing yellow light observed from either direction will authorize an eastward reverse move toward 16th Street or Bays following a westward move into the Coach Yard which does not clear the interlocking plant.

Martinez: Limits extend on eastward main track from home signal 600 feet east of station building to westward dwarf signals 938 feet east of station building on Tracy line and on Suisun Bay bridge line.

Limits extend on westward main track from signals 2350 feet east of station building on Tracy line and on Suisun Bay bridge line, to interlocking signal 50 feet west of junction switch. Signal operator's permission must be obtained before fouling westward main track at crossover and switches from spurs to westward main track between Martinez and Ozol.

Whistle signals:
To Bridge line, o — —,
To Tracy line, — o —.

Suisun Bay Bridge, Martinez: Bridge zone limits extend on both tracks from home signals 800 feet east of draw span to home signals 550 feet west of draw span.

Davis: Limits extend on eastward and westward main tracks from interlocking signals at MP 75.25 to interlocking signal on signal bridge at MP 75.98 on westward main, interlocking signals 325 feet west of MP 75.98 on eastward main and east pass, interlocking signal at MP 75.97 on the west pass and to westward interlocking signal at MP 75.55 on the Gerber line.

The switch to the University spur is hand throw. Member of crew will operate hand throw switch after receiving permission of signal operator. Dwarf signal at clear point is an interlocking signal.

Cranks for hand operating power switches are mounted on signal instrument case on south side of track at west end of street underpass on the west end, on instrument case on south side of track opposite P.G.&E. switch on the Sacramento end, and on instrument case between 3rd Street and 4th Street on the Woodland end.

When necessary to hand operate power switches, permission must be obtained from the signal operator and be governed by Rules 771 and 772.

Instructions for hand operating power switches are mounted on cases above crank holders.

Whistle signals:
To or from Sacramento from or to Woodland line, o — —,
Western Division eastward trains to enter siding, — o —.

Sacramento River Drawbridge: Eastward trains stopped by interlocking signal at MP 87.94 must contact Sacramento Yardmaster and if authorized to enter yard, must then contact signal operator, Sacramento River Drawbridge, and be governed by Rules 662 and 663.

Brazos Drawbridge over Napa River: Movement over bridge not permitted unless signal operator on duty.

Tracy: Limits extend from westward SA Signal at MP 70.68 to eastward SA Signal at MP 70.62 on the Niles line and to eastward SA Signal at MP 82.18 on the Martinez line.

Position of the junction switch between Niles Subdivision MP 70.66 and Martinez Subdivision MP 82.16 controlled by yardman from control panel located at the base of the Yardmaster's tower.

The junction switch between Niles Line MP 70.66 and Martinez Line MP 82.16 is equipped with a dual control machine. When necessary to hand throw this switch, permission must be secured from the Yardmaster and Rules 771 and 772 govern.

Interlocking portion of the SA signal controlled by Tracy Telegraph Operator.

The telegraph operator shall determine that switch has been lined for proper route before clearing a signal.

RULE 663(b). (Interlocking).
Signal Operator at
TRACY
MARTINEZ
DAVIS
may authorize movemnets under provisions of this rule after it has been ascertained indication lights on control panel are illuminated indicating dual control switches are in proper position and locked for movement without requiring dual control switches to be placed in hand position as required by Rule 772.

When indication lights on control panel are not illuminated movements may be authorized under provisions of this rule; however, before making a facing point or trailing point movement over dual control switches, such switches must be placed in hand position in accordance with Rule 772 and locked until movement over switch has been completed. When movement has been completed, switch must be returned to normal position and selector lever restored to motor position and locked.

RULE 680. AUTOMATIC INTERLOCKING

SNRy Crossing, MP 86.90: Limits extend between interlocking signals in approach to both sides of crossing.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows
W	77	Oakland (16th St.)	Stop east of 67th St. Emeryville and wait until Signal 77 displays proceed indication.
S	224	Pinole	Enter eastward siding Pinole and remain in siding until letter "M" is displayed.
M	7-ft. mast east end eastward siding	Pinole	Enter main track and proceed as prescribed by Rule D-251.
S	245	Pinole	Enter westward siding Pinole and remain in siding until letter "M" is displayed.
M	7-ft. mast west end westward siding	Pinole	Enter main track and proceed as prescribed by Rule D-251.
S	409	Bahia	Enter siding Bahia and remain in siding until letter M is displayed.
M	West end center siding	Bahia	Enter main track and proceed as prescribed by Rule D-251.
S	354	Bahia	Enter siding at Bahia and remain in siding until letter M is displayed.
M	East end center siding	Bahia	Enter main track and proceed as prescribed by Rule D-251.

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows
S	505	Suisun-Fairfield	Enter siding Suisun-Fairfield and remain in siding until letter M displayed.
M	7-ft. mast west end westward siding	Suisun-Fairfield	Enter main track and proceed as prescribed by Rule D-251.
W	672	Dixon	Eastward train must stop and not proceed until indicator is extinguished except trains may proceed not exceeding restricted speed to the next home signal after receiving verbal authority from the train dispatcher. A telephone is located at Signal 672.
H	702	Tremont	Eastward trains must stop west of road crossing A-71.6 at Tremont and member of crew open small door on track side of Hot Box Locator, located west of crossing A-71.6. Numerals displayed by indicators inside the box indicate location of hot bearings in relation to rear axle of train. Top row indicates hot bearings on right side of train, lower row on left side of train in direction of movement. Indicators will display a maximum of four hot bearings on each side of train. All journals of car indicated must be inspected as well as all journals of each adjoining car. After hot bearing has been located from information furnished by indicators, press black push button to cancel numbers on the indicator. Door must be closed and secured with switch lock. A phone is located at Crossing A-71.6 for giving information to train dispatcher.
S	783	Davis	Enter westward siding (applies to freight trains only).

Display of letter "M" does not relieve conductors or engineers of compliance with Rule 513.

When necessary to use siding and letter "S" is not displayed, permission must be obtained from train dispatcher.

RULE 715. Automatic Train Stop eastward track from Martinez to westward dwarf signal 300 feet east of draw span.

When Signal 328 displays yellow aspect, trains must not exceed 15 MPH from this signal to track magnet located 550 feet west of semi-automatic signal, opposite white concrete marker block.

Automatic Train Stop westward track from 100 feet east of Signal 357 to Martinez.

When Signal 347 displays yellow aspect, trains must not exceed 15 MPH from this signal to track magnet located 1250 feet east of semi-automatic signal, opposite white mark on bridge.

GENERAL REGULATIONS

RULE 825. Elmira: Not less than three hand brakes must be set on east end of cars left standing except with less than three hand brakes all brakes must be set.

Tracy: All freight trains entering Tracy Yard will tie no less than three hand brakes on the east end unless instructed otherwise by Yardmaster.

Trains crews must not release brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 827. Passenger trains operating between West Oakland and Gerber, except streamlined Cascade and Shasta Daylight, making station stop at Davis, must approach at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

Tracy: Passenger trains and trains consisting entirely of passenger equipment, except Nos. 51 and 52, must approach Tracy at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

RULE 830. Martinez: When trains 51 and 9 performing station work block Ferry Street crossing, trains 12 and 58 will approach Ferry Street and wait until trains 51 and 9 have cleared and vehicular traffic allowed to move before blocking this crossing.

Trains 9, 11 and 51 will stop with units clear of Ferry Street crossing, and, if train is of sufficient length, after head end work completed second stop will be made blocking Ferry Street to detrain passengers.

Trains 57 and 101 will make normal station stop, blocking Ferry Street but not to exceed 10 minutes, except when No. 57 transfers to No. 10 two stops will be necessary; first stop to be made with units to clear Ferry Street.

Eastward passenger trains making station stop at Martinez, except Nos. 12, 52 and 58 will make normal station stop, blocking Ferry Street, but not to exceed 10 minutes.

Schellville: Trains arriving and departing and when switching movements are being made over Highway Crossing No. 12, Schellville crossing will be cleared after each move is made to allow vehicular traffic to pass.

RULE 858. Between Oakland (16th Street) and San Francisco passengers and hand baggage will be transported by bus; checked baggage, mail and express by truck.

AIR BRAKE RULES

RULE 2. Enginemen taking charge of engines for freight and passenger service at West Oakland diesel shop and Tracy diesel shop will consider that condensation has been drained from reservoirs, and from moisture and dirt collectors; that sanders are operating properly; that there are no flat spots on wheels.

RULE 17. Retaining valves must be used on freight and mixed trains as follows:

With less than two dynamic brakes in operation, trains consisting of more than 110 cars which average over 60 tons per operative brake must use 20 retaining valves on head end of train on descending grade from Creston to Cordelia.

FREIGHT TRAINS

RULE 22. Trainmen must not couple air hose on outgoing trains at Ozol or Suisun-Fairfield until train is made up and caboose and road engine are on train. Coupling caboose and road engine to train will be considered as an indication that the train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the caboose and road engine have been attached without instructions from the yardmaster, who will see to it that members of the crew are notified in advance.

RULE 24-B. Davis, Tracy and Oakland: When crew is changed, but train consist remains intact, incoming engineer after completing stop will make full service brake application leaving brakes applied. Outgoing engineer will release brakes and proceed without making prescribed test.

RULE 33. When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH, except when gross tonnage exceeds 85 tons per operative brake, maximum speed must not exceed 25 MPH on descending grades of 1.2% to 1.5% and 20 MPH on descending grades in excess of 1.5%. Grades where such restrictions apply will be:

OAKLAND TO SACRAMENTO

Maximum speed of freight trains must not exceed 20 MPH on descending grade between the following milepost locations when gross tonnage exceeds 85 tons per operative brake:

Eastward

MP 33.8 to MP 36.0 (Eastbound main)

SCHELLVILLE BRANCH

Westward

MP 55.0 to MP 58.0

Maximum speed of freight trains must not exceed 25 MPH on descending grade between the following milepost locations when gross tonnage exceeds 85 tons per operative brake:

Eastward

MP 58.0 to MP 62.8

CALISTOGA BRANCH

Westward

MP 77.0 to MP 79.0

RULE 39. Running test must be made as follows: Eastward and westward trains at Creston.

MISCELLANEOUS

Westward passenger trains making station stop at Martinez, will stop with units clear of Ferry Street Crossing, and if train is of sufficient length after head end work completed, second stop will be made to detrain passengers.

Eastward passenger trains making station stop at Martinez, except No. 12 and No. 10, will make normal station stop blocking Ferry Street, but not to exceed ten minutes.

No. 12 must be routed via Mococo Line and will pull rear end to clear Ferry Street. After head end work completed and passengers entrained, train will make reverse movement, head end to clear junction switch as follows:

Before making reverse movement against current of traffic over Ferry Street on eastward track, a member of crew will lower the crossing gates by operating switch key control located on the east side of the crossing gate adjacent to station building, turning switch key to RIGHT to lower crossing gates, and remove key before commencing movement. If reverse movement is delayed after crossing gates are lowered, the gates may be raised by use of key control; turn key to LEFT to raise crossing gates.

Before reverse movement is made from Mococo Line, operator at Martinez will operate toggle switch on the control machine, holding Signals 340 and 342 in stop position until backup movement is completed, after which toggle switch must be returned to normal position.

No. 10 when making transfer at Martinez off Train No. 57 will also be lined to the Mococo Line and reverse movement made in accordance with above instructions.

10. Engines listed must not operate on tracks shown below:

Class of Engine	Restricted Tracks
All	Rocktram—Three spur tracks diverging from interchange tracks on river side of main track.

11. Load limit (car and contents):

Oakland-Sacramento	263,000 pounds
***Martinez-Tracy	263,000 pounds
Suisun-Fairfield-Schellville	240,000 pounds
Napa Jct.-Larkmead	240,000 pounds
*Larkmead-Calistoga	169,000 pounds
Union-West Napa	240,000 pounds
Napa Jct.-Vallejo	240,000 pounds
Elmira-Winters	240,000 pounds
*Winters-Esparto	210,000 pounds
**Avon-San Ramon	210,000 pounds
San Ramon-Radum	240,000 pounds

*Exception: Passenger equipment on six axles weighing not over 200,000 pounds may be handled.

**When notified that false bents are not in place on bridge 56.99 load limit between Avon and Radum will be 169,000 pounds.

***Cars SP 463000 through 463499, maximum gross load per car is 260,000 pounds when operated in series.

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Suisun-Fairfield	10 (Water)
Cannon	10 (Water)
Dixon	28 (Water)
Flosden	3
Schellville	5 (Water)

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	Location	Description	
6.4	Emeryville	Key system underpass	Side
6.6	Emeryville	W. U. pole line, near Park Ave.	Side
14.5	Richmond	AT&SFRy overhead bridge	Overhead
16.0	San Pablo	AT&SFRy overhead bridge.	Overhead & side
34.7	Martinez	Alhambra slough bridge	Side
88.5	Washington	Sacramento River drawbridge	Side
63.6	Vacaville	Ulatis Creek bridge	Side
75.8	Winters	Putah Creek bridge	Side
52.5	Thomasson	Suisun Creek bridge	Side
53.0	Thomasson	Tunnel	Overhead
93.5	Maple	Napa River bridge	Side
37.9	Avon	Pachecho slough bridge	Side
43.1	Nichols	Wagon bridge	Overhead & side
43.2	Nichols	AT&SFRy overhead bridge.	Overhead & side
48.8	Pittsburg	Signal bridge	Overhead
64.7	Brazos	Drawbridge over Napa River	Side
44.6	Hookston	Walnut Creek bridge	Overhead & side
49.2	Walnut Creek	San Ramon Creek bridge	Overhead & side
57.0	San Ramon	San Ramon Creek bridge	Overhead & side

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 5 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 6 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY REGARDLESS OF TIME.

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
EASTWARD, WEST OAKLAND TO SACRAMENTO:			
4.9 to 4.25	15	15	15
4.25 to 4.81 (crossong)	20	20	20
4.81 to 7.75	45	45	45
7.75 to 16.31	60	60	60
16.31 to 21.50	70	60	70
21.50 to 34.40	45	45	45
★34.40 to 34.70 (Martinez)	30	30	30
34.70 to 35.50	45	45	45
35.50 to 37.12	79	60	70
37.12 to 37.40	70	60	70
37.40 to 48.38	79	60	70
48.38 to 49.00	55	55	55
49.00 to 75.20	79	60	70
75.20 to 76.00, except:	45	40	45
★★75.25 to 75.60 (crossover and west leg wye to Gerber line)	20	20	20
76.00 to 87.79	79	60	70
87.79 to 88.54 (SNRy. crossing)	45	45	45
88.54 to 89.00	10	10	10
EASTWARD, AGAINST CURRENT OF TRAFFIC:			
West Oakland to Sacramento	59	49	49
(Subject to lesser speeds on westward track), except:			
31.10 to 31.11 (Ozol)	35	35	35
34.20 to 34.21 (Ozol)	35	35	35
75.20 to 76.00	20	20	20
EASTWARD, MARTINEZ TO TRACY:			
34.70 to 35.88	35	35	35
35.88 to 35.91	25	25	25
35.91 to 48.15	79	60	70
48.15 to 48.90	79	50	70
★48.90 to 48.95 (Pittsburg)	25	25	25
48.95 to 53.30	79	60	70
★★★53.30 to 53.60 (Antioch)	45	45	45
53.60 to 80.70	79	60	70
80.70 to 81.83	45	45	45
81.83 to 82.24 (jct. Niles line)	20	20	20
82.24 to 82.58 (jct. Los Banos line)	35	35	35

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
WESTWARD, SACRAMENTO TO WEST OAKLAND:			
89.00 to 88.54	10	10	10
88.54 to 76.00	79	60	70
76.00 to 75.20, except:	45	40	45
★★75.60 to 75.36 (West leg wye and jct. switch)	20	20	20
75.20 to 49.00	79	60	70
49.00 to 48.38	55	55	55
48.38 to 35.50	79	60	70
35.50 to 34.70	45	45	45
★34.70 to 34.40 (Martinez)	30	30	30
34.40 to 21.50	45	45	45
21.50 to 16.31	70	60	70
16.31 to 7.75	60	60	60
7.75 to 4.81	45	45	45
4.81 to 4.25 (crossing)	20	20	20
4.25 to 4.9	15	15	15
WESTWARD, AGAINST CURRENT OF TRAFFIC:			
Sacramento to West Oakland	59	49	49
(Subject to lesser speeds on eastward track), except:			
34.21 to 34.20 (Ozol)	35	35	35
31.11 to 31.10 (Ozol)	35	35	35
76.00 to 75.20	20	20	20
WESTWARD, TRACY TO MARTINEZ:			
82.58 to 82.24 (jct. Los Banos line)	35	35	35
82.24 to 81.83 (jct. Niles line)	20	20	20
81.83 to 80.70	45	45	45
80.70 to 53.60	79	60	70
★★★53.60 to 53.30 (Antioch)	45	45	45
53.30 to 49.70	79	60	70
49.70 to 48.95	79	50	70
★48.95 to 48.90 (Pittsburg)	25	25	25
48.90 to 35.91	79	60	70
35.91 to 34.70	30	30	30

★Regulated by City ordinance. ★★ICC Regulation. ★★★Regulated by PUC order.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH (65 MPH between Martinez and Tracy) consistent with local restrictions account grade and other conditions, provided trains:

1. Do not exceed 120 cars and 40 tons per operative brake; or,
2. When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake
70	60
75	59
80	58
85	57
90	56
95	55
100	54
105	53
110	52
115	51
120	50

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 5 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 6 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of sginals and INSURE SAFETY REGARDLESS OF TIME.

TERRITORY MP MP Column:	FREIGHT AND MIXED 1	LIGHT ENGINES 2
EASTWARD, AVON TO RADUM:		
38.10 to 44.64	25	25
44.64 to 44.67 (bridge)	15	15
44.67 to 49.22	25	25
49.22 to 49.25 (bridge)	15	15
49.25 to 56.99	25	25
56.99 to 57.02 (bridge)	15	15
57.02 to 67.80	25	25
EASTWARD, ELMIRA TO ESPARTO:		
59.60 to 76.00	25	25
76.00 to 90.35	15	15
EASTWARD, SUISUN-FAIRFIELD TO SCHELLVILLE:		
48.93 to 49.30	15	15
49.30 to 61.47	35	35
61.47 to 61.77 (Napa Jct.)	15	15
61.77 to 64.15	35	35
64.15 to 65.25 (drawbridge)	15	15
65.25 to 72.60	35	35
72.60 to NWPRR. (on wye)	10	10
EASTWARD, NAPA JUNCTION TO VALLEJO:		
61.60 to 61.75	15	15
61.75 to 66.65	25	25
66.65 to 69.00	15	15
EASTWARD, NAPA JUNCTION TO CALISTOGA:		
61.25 to 61.30	15	15
61.30 to 69.20, except:	35	35
Thru turnouts at MP 65.86 and 66.40	15	15
★69.20 to 71.10 (Napa)	25	25
71.10 to 71.60	35	35
71.60 to 71.78 (highway crossing)	15	15
71.78 to 79.50	35	35
79.50 to 87.00	25	25
★87.00 to 87.70 (St. Helena)	20	20
87.70 to 95.78	25	25
EASTWARD, WEST NAPA TO UNION:	15	15

TERRITORY MP MP Column:	FREIGHT AND MIXED 1	LIGHT ENGINES 2
WESTWARD, RADUM TO AVON:		
67.80 to 57.02	25	25
57.02 to 56.99 (bridge)	15	15
56.99 to 49.25	25	25
49.25 to 49.22	15	15
49.22 to 44.67	25	25
44.67 to 44.64 (bridge)	15	15
44.64 to 38.10	25	25
WESTWARD, ESPARTO TO ELMIRA:		
90.35 to 76.00	15	15
76.00 to 59.60	25	25
WESTWARD, SCHELLVILLE TO SUISUN-FAIRFIELD:		
NWPRR. on wye to 72.60	10	10
72.60 to 65.25	35	35
65.25 to 64.15 (drawbridge)	15	15
64.15 to 61.77	35	35
61.77 to 61.47	15	15
61.47 to 49.30	35	35
49.30 to 48.93	15	15
WESTWARD, VALLEJO TO NAPA JUNCTION:		
69.00 to 66.65	15	15
66.65 to 61.75	25	25
61.75 to 61.60	15	15
WESTWARD, CALISTOGA TO NAPA JUNCTION:		
95.78 to 87.70	25	25
★87.70 to 87.00 (St. Helena)	20	20
87.00 to 79.50	25	25
79.50 to 71.78	35	35
71.78 to 71.60 (highway crossing)	15	15
71.60 to 71.10	35	35
★71.10 to 69.20 (Napa)	25	25
69.20 to 61.30, except:	35	35
Thru turnouts at MP 66.40 and MP 65.86	15	15
61.30 to 61.25	15	15
WESTWARD, UNION TO WEST NAPA:	15	15

★Regulated by City ordinance.

On Calistoga Branch between locations shown below, maximum speed must not be exceeded when handled by following engines subject to further restrictions shown in SPEED RESTRICTIONS FOR TRAINS TABLE above:

MP 78.56 to MP 92.30

DF, 4, 9, 10, 11, 13, 14, 605, 607, 610 to 616, 621	10 MPH
DS 101, 109, 112 to 114, 117 to 122	15 MPH
DF 1, 2, 3, 5 to 8, 109, 111, 500, 501	15 MPH
DS 9 to 12, 100, 102 to 108, 111, 115, 607	20 MPH
DF 502	20 MPH

MP 92.30 to MP 95.78

DS 9 to 12, 100 to 122	10 MPH

On Union Branch maximum speed must not be exceeded when handled by following engines subject to further restrictions shown in SPEED RESTRICTIONS FOR TRAINS TABLE above:

DF 12, 15, 608, 609, 619, 622	10 MPH

On Winters Branch between MP 76.34 to 90.08 maximum speed must not be exceeded when handled by following engines subject to further restrictions shown in SPEED RESTRICTIONS FOR TRAINS TABLE above:

DS 1, 4, 5	10 MPH
DF 800	10 MPH

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Oakland and Martinez	Martinez to Bridge Summit	Bridge Summit to ② Sacramento	Sacramento to Martinez ②	Martinez and Tracy
DP-4, 7, 12	6000 to 6004, 6017, 6018, 6046 to 6054, 5900 to 5909, 5916, 5917	3400	1400	2975	2650	3400
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6064, 5910 to 5915 6019 to 6045, 5918 to 5924	3425	1400	2975	2650	3425
DP-13	6067 to 6068					
DF-1 to 12	6138 to 6470, 8022 to 8305, except	3750	1600	3300	2950	3750
	with 61:16 gear ratio					
	with 60:17 gear ratio	3000				3000
DF-100	5200 to 5202					
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5248, 5253 to 5278	5000	2475	4600	4100	5000
DF-109, 111	4903 to 4905, 5250 to 5252	5000	3050	5000	5500	5000
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5339 to 5444, 5449 to 5493	6100	2575	5425	4800	6100
DF-123, 126	5448, 5494 to 5507					
DF-500, 501	4800 to 4815					
DF-502	4816 to 4818					
DF-602, 603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5895	3950	1700	3520	3130	3950
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	4050	1750	3650	3250	4050
DF-800, 801	9000 to 9017	7625	3150	6675	5950	7625
DS-1 to 8	1000 to 1032	1625	660	1425	1275	1625
DS-9 to 12	1033 to 1090					
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	2450	1025	2650	1925	2450
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	3200	1400	2775	2475	3200
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596					
DS-200, 201	1900 to 1903					
DS-500 to 506	5100 to 5120	2000	850	1775	1575	2000
DS-600 to 604	4600 to 4623, 4700 to 4703	3250	1350	2900	①2550	3250
DS-605, 606	4624 to 4633	3600	1475	3150	2800	3600
DS-607	4634 to 4645					

①Applies Sacramento to Suisun-Fairfield only.
②Will not apply to Sacramento to Northern Engines.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Suisun-Fairfield to Napa Jct.	Nape Jct. to Suisun-Fairfield	Napa Jct. and Larkmead Union and West Napa	Larkmead and Calistoga	Napa Jct. to Schellville Napa Jct. to Vallejo	Schellville to Napa Jct.
DF-1 to 12	6138 to 6470, 8022 to 8305, except	1000	1300			6050	2475
	with 61:16 gear ratio						
	with 60:17 gear ratio						
DF-100	5200 to 5202						
DF-101, 103 to 108, 110, 112	4900 to 4902, 5203 to 5248, 5253 to 5278	1575	2100	3825		5000	3825
DF-109, 111	4903 to 4905, 5252	1875	2525	2450		5000	4700
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5339 to 5444, 5449 to 5493	1600	2175	2100		10000	4200
DF-115, 119, 123, 126	5448, 5494 to 5507	1650	2100				
DF-500, 501	4800 to 4815						
DF-502	4816 to 4818						
DF-602, 603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5895	1080	1400				
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	1100	1475			10000	2725
DS-1 to 8	1000 to 1032	400	550	525	525	4000	1050
DS-9 to 12	1033 to 1090						
DS-100 to 109, 111, 115, 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	800	1050			4000	2000
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	775	1050	①1025		4000	2050
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596						
DS-200, 201	1900 to 1903	300	400	375	375		
DS-500 to 506	5100 to 5120	550	750	725	725	3000	
DS-600 to 604	4600 to 4623, 4700 to 4703	825	1075	1050		4000	2075
DS-605, 606	4624 to 4633	900					
DS-607	4634 to 4645						

①DS-118 not permitted to operate between Union and West Napa.

Following nominal class engines not permitted to operate between Yountville and Larkmead:
DF-12, 600 to 604, 606, 608, 609, 617 to 620, 622.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Vallejo to Napa Jct. Elmira to Winters	Winters to Elmira	Winters and Esparto	Radum to San Ramon	San Ramon to Radum	Avon to San Ramon	San Ramon to Avon
DF-1 to 12	6138 to 6470, 8022 to 8305, except							
	with 61:16 gear ratio							
	with 60:17 gear ratio							
DF-100	5200 to 5202							
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5248, 5253 to 5278	3725						
DF-109, 111	4903 to 4905, 5252	3350						
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5339 to 5444, 5449 to 5493	2825	3275					
DF115, 119, 123, 126	5448, 5494 to 5507							
DF-500, 501	4800 to 4815							
DF-502	4816 to 4818							
DF-602, 603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5895		2850					
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871		2850					
DS-1 to 8	1000 to 1032	725	875					
DS-9 to 12	1033 to 1090							
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	1400	1650					
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	1400						
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596							
DS-200, 201	1900 to 1903	1020	1150	2475	1250	2650	975	2650
DS-500 to 506	5100 to 5120	975	1125	1800	1100	3000		
DS-600 to 604	4600 to 4623, 4700 to 4703	1450	1725					
DS-605, 606	4625 to 4633							
DS-607	4634 to 4645							

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

MEMORANDUM

Pursuant to report and order of Interstate Commerce Commission in Finance Docket No. 22905, operation of Trains 9 and 10, "Shasta Daylight", between San Francisco, California, and Portland, Oregon, discontinued effective May 20 until June 10, 1964, when service will be resumed on daily basis, to and including September 8, 1964.

Schedule Statement ST-846
Prepared in the Office of
General Superintendent of Transportation
San Francisco, May 25, 1964.

Copies to: DJR(31) WDL RMG(50) WGP(5) HSO(50) MAM(48) JGS(5) HMW(25)
MAN(13) CAB(18) AEG WHS(3) WRL JBR HAN(4) CHF FER(13) JNA(12)
TAF(3) ALK TBL BRJ(6) ACF JRC DRK(5) RRR(5) AWK(5) WGM(5) ASM(5)
JPG JJW JJD FMZ JNS MJM AHW (6) FEC GAD CSM DJC HHD JLK HLP RCH JHL(5)